

METHOD STATEMENT

BROADWATER FARM ESTATE

Description of the Task/Activity:	Application of protective “Jacket” on to the mosaic surface before cutting the cement blocks			
Project Name:	Broadwater Farm Estate - mural mosaic project	Project Ref:	3156	
Site Address/ Location:	Broadwater Farm Estate, London N17 6ND	Start Date/Time:	n/a	
		Finish Date/Time:	n/a	
Personnel involved:	Name	Role/Trade		
	Adrian Attwood	Director		
	Paolo Volpi	Senior Art Conservator		
	Talia Weiss	Art Conservator		
Works Supervisor:	Paolo Volpi	Role:	Senior Art Conservator	07402 143364
Key Plant and Tools Required:	BUILDING PROTECTIVE JACKET Black buckets Plastic containers with lids (different measures) Measuring jugs (different measures) Dentistry tools Paint brushes Spatulae (different measures) Correx protection sheets Cotton gauze rolls Starch glue* Vinavil glue* Silicon rubber RTV128* Silicon rubber catalyst* Thixotropic for silicon rubber* Jesmonite AC100 weather resistant* Jesmonite quadaxial fibreglass fabric rolls* Jesmonite Thixotrope* 2"x2" wooden timbers 30mm x 30mm x 2mm Aluminium L shape bars Wood saw Hacksaw blade 0.8mm stainless steel wire Straight Tip Pliers Rubbish bags Paper towel rolls Scissors *COSHH Materials: All operatives will have necessary knowledge, skills and experience to work with hazardous substances.			

	Understanding hazard and risks. Knowing that working with hazardous substances can put people's health at risk. Having the ability (and authority) to collect all the necessary information. Having the knowledge, skills and experience to make the right decisions regarding the exposure control. All chemicals will be locked in a special COSHH Hazardous substance metal cabinet, in order to avoid any involuntary contact with children and learning-impaired people. * Please see Safety data sheets attached.	
Key Materials Required:	See above	
Other Essential Equipment:	PPE: Hard Hat Hi Vis/Vest/Jacket Steel toe caps/boots Disposable particulate masks Disposable rubber gloves Safety glasses Overall Tyvek First Aid Kit to be present on site at all times Sterile eye wash First Aid Kit to be present on site at all times COSHH Hazardous substance metal cabinet	
Specific Identified Residual Hazards:	*Please refer to the Risk Assessment	
Specific Staff Training Requirements:	ART CONSERVATION/RESTORATION Training FIRST AID Training: A First Aid Trained person will be on site to assist with work. COVID 19 Awareness with all site operatives. The work will be managed by a competent, experienced and qualified person employed by DBR Conservation. All operatives will receive a site safety induction prior to the commencement of work, together with information and instruction on the content of this method statement and the attached risk assessments. All operatives have received training regarding the safe use of hand tools and associated conservation products. A record of all staff training shall be maintained and will be available on request.	

Sequence of Operations:	Use the correct PPE. All Personnel will be checked by the person in charge to make sure they are correctly dressed & equipped before commencement of work & will ensure that full hygiene procedures have been taken. Exclude non-essential personnel from the work area and post necessary warning signs. Segregation of the working area: the work area must be segregated off for the whole duration of the job. This also ensures that no access to the site area is gained from any other person in the building. The segregate areas will have adequate warning signage supplied by DBR or the principal Contractor company. Once all the above detailed items in this method statement have been completed, the phase of work can commence. Further floor protection with Correx protection sheets if needed. Photos of each area to be taken prior to commencing work and throughout the work in progress. Above and below each band/cutting line (where the tesserae were removed from), a masking tape (Frog tape-type green) will be applied. This will be the start and the end of the safety jackets. Application of at least two criss-crossed layers of cotton gauze with the aid of starch glue mixed with 20% of Vinavil glue paying attention that every layer is perfectly stuck onto the surface. A homogeneous layer of silicon rubber with thixotropic additive will be applied with a brush so to create elasticity and soft cushioning. Rubber keys will be applied on top of the silicon rubber in order to receive and hold still the next final covering. The keys will be customised in order to protrude sufficiently outside and lock the following "hard shell". A series of layers (minimum 4 layers, to reach at least 10mm of thickness) of quadaxial fibreglass fabric soaked in Jesmonite AC100 (weather resistant resin) with addition of thixotropic will provide further stability (Sandwich system) and resilience to the "safety jacket". Wooden square pads will be soaked between the layers at the top and bottom margins of the concrete block so, once the safety jacket is dry, clamps will be applied for further stability and precaution. Aluminium handles will be inserted to make the removal and handling of the jacket easier, once the blocks are cut, stored and ready for restoration.	
Temporary Supports and Props needed to facilitate the works:	N/a	
Method of Access and Egress to the work area:	N/a	
Fall Protection Measures:	N/a	

Asbestos Measures	It is very unlikely to find any asbestos in the working area but if asbestos is suspected, then the work will STOP immediately for further investigation.						
Conservation Measures	All protections to the fabric must be installed before the work commences.						
Hazardous Substances: (Attach COSHH Assessments and MSDS)	 Very Toxic  Harmful/Irritant  Corrosive  Dangerous for the environment  Oxidising  Highly flammable  Longer term health hazards such as carcinogenicity						
Applicable:	No	Yes	No	No	No	Yes	Yes
SWL's:	(Detail any limits on the loadings applicable to temporary plant/equipment or fixed elements of the structure where the work is taking place.)						
Required Personnel Protective Equip.: (DBR PPE to be Worn at all times)	 Safety Boots Yes	 Hard Hats Yes	 Safety Gloves Yes	 Hearing Protection no	 Respiratory Protection Yes (when necessary)	 Eye Protection Yes (when necessary)	Other: 1. Hi-Viz 2. Overalls 3.
Emergency Procedures:	As per the site emergency procedures, if an emergency occurs, please contact a member of the site management team immediately.						
 First Aid Facilities	Name of On-Site First Aider:						
	First Aid Box Location:			First Aid box always present on site			
	Location of Nearest Hospital:			North Middlesex University Hospital, Sterling Way, London N18 1QX			



RISK ASSESSMENT

BROADWATER FARM ESTATE

Description of the Task/Activity:		Application of protective “Jacket” on to the mosaic surface before cutting the cement blocks				Project Ref:		3156					
Project Name:		Broadwater Farm Estate - mural mosaic project				Date Prepared:		23/05/23					
Site Address/ Location:		Broadwater Farm Estate, London N17 6ND				Start Date/Time:		n/a					
						Finish Date/Time:		n/a					
IDENTIFIED HAZARD RATING BEFORE CONTROL MEASURES						Likelihood		Severity			Risk Score		
Ref.	Key hazards associated with the above task/activity.					Probable	Occasional	Remote	Catastrophic	Critical	Serious	Marginal	Negligible
	Score:					3	2	1	5	4	3	2	1
1	Inhalation of particles						x					x	
2	Irritation and Ingestion of particles						x					x	
3	Contamination of the surrounding area						x					x	
4	Slips Trips and falls					x					x		
5	Manual material handling (MMH)						x				x		
6	Power tools Handling (Hoover, extension leads, Dremel rotary tool)					x					x		
7	Working at height					x					x		
8	Jesmonite AC100 weather resistant					x						x	
9	Jesmonite quadaxial fibreglass fabric						x					x	
10	Jesmonite Thixotrope							x				x	
11	Silicon Rubber RTV128						x					x	
12	Silicon rubber catalyst					x					x		
13	Tixotropic for silicon rubber						x					x	
14	Starch glue					x						x	
15	Vinavil glue					x						x	
Risk Assessment Scores:		10+ Very High Risk			5-9 High Risk			1-4 Low Risk					

Identified Hazard Rating After Control Measures				Likelihood			Severity		
Key hazards associated with the above task/activity.				P	O	R	C	C	S
				r	c	e	a	r	e
				b	a		t	i	
				a	s		r	m	
				b	i		p	h	
				l	n		ic	ical	ious
							M		N
							a		e
							r		g
							g		l
							l		g
							l		l

Score:		3	2	1	5	4	3	2	1
	Control Measures to be Implemented								
1 Inhalation of particles	During any mechanical operations, i.e. chiselling, scraping or brushing, a disposable dust mask must be worn and the working area kept reasonably clean, in order to prevent any risk of spreading and inhaling dust.		x					x	4
2 Irritation and Ingestion of particles	All Personnel will wear the appropriate PPE, which will include appropriate face masks for the operations carried out, eye protection, overalls & gloves. Everyone will observe a significantly high level of personal hygiene and will not eat or drink on site.			x				x	4
3 Contamination of the surrounding area	By using localised containment sheeting, the spread of the contaminated material over the rest of the area will be prevented. The materials, such as sheeting, rubbing tools and cloths will be bagged up, removed from the site and disposed according to existing Waste Regulations. All Personnel will clean up the work area at the end of each day. The Environment will be reasonably protected. All other people not involved in the task will be kept away from the work site.			x				x	2
4 Slips Trips and falls	The specified PPE is always to be worn. Work area is to be clearly segregated and cleanliness in the work area, especially on scaffolding, is always to be well maintained.			x				x	4
5 Manual material handling (MMH)	As per HSE Guidelines, lifts are not to exceed 25kg per person, or what the operative is happy to lift (this may be less than 25kg). Plan the lifting before moving any objects. The object should be lifted and all operatives must confirm they are happy with the carried weight before moving.		x					x	4
5 Power tools Handling	Keep all hand power tools in good condition with routine maintenance. Use the right tool for the job and within its intended purpose of design. Examine each tool for damage prior to use and never use if damaged. Operate tools within the manufacturer's guidance.		x					x	3
6 Working at height	All work will be undertaken by qualified and competent persons	x					x		4

	with experience in this type of work and who are aware of risks of working at height and, in all cases, all operatives will work in accordance with safety procedures of "The Work at Height Regulations 2005".									
7 Jesmonite AC100 weather resistant	Eye and skin protections (chemical goggles, safety glasses and Nitrile gloves) should be worn during the mixing operations. A dust mask should be worn to prevent any risk of inhaling dust. <i>*Please see Safety data sheets in attached.</i>		x					x		3
8 Jesmonite quadaxial fibreglass fabric	The glass fibres used have diameters greater than 3.5 microns and are therefore NOT respirable but long exposure to filament glass fibres can causes irritation to the skin and irritation of the eyes, nose or throat. Safety eye protection, dust mask and Nitrile gloves must be worn when cutting the product. <i>*Please see Safety data sheets in attached.</i>			x				x		2
9 Jesmonite Thixotrope	The product is used in a very small quantity (few drops). Contacts with skin or vapours is very remote. Therefore safety eye protection and Nitrile gloves must be worn when used. <i>*Please see Safety data sheets in attached.</i>			x				x		2
10 Silicon Rubber RTV128	Overall, safety eye protection and nitrile gloves must be worn when using this product. <i>*Please see Safety data sheets in attached.</i>		x					x		2
11 Silicon rubber catalyst	Using appropriate clothing and gloves will prevent any possibility of skin contact. Tidiness while working will prevent also any contact with dangerous materials. Disposable nitrile gloves need to be worn at all times during the work activities. The use of this product is limited by its ratio (5%). <i>*Please see Safety data sheets in attached.</i>		x					x		3
12 Tixotropic for silicon rubber	The product is used in a very small quantity (few drops). Contacts with skin or vapours is very remote. Therefore safety eye protection and Nitrile gloves must be worn when used.			x				x		2

	*Please see Safety data sheets in attached.									
13 Starch glue	The glue will be mixed with water until a high viscosity is reached, then it will be applied using paint brushes. The risk of spillage is very low. Good quality disposable gloves and safety goggles will be sufficient to prevent occasional drips on skin and need to be worn at all times during the work activities. *Please see Safety data sheets in attached.			x				x		2
14 Vinavil glue	Good quality disposable gloves and safety goggles will be sufficient to prevent occasional drips on skin and need to be worn at all times during the work activities. The use of this product is limited by its ratio (20%). *Please see Safety data sheets in attached.			x				x		3
Risk Assessment Scores:		10+ Very High Risk		5-9 High Risk			1-4 Low Risk			

PERSONS AFFECTED					
Operatives	x	Members of Public		Site Visitors	x
Other Workers	x	Managers	x	Young Persons	
Others					

PPE REQUIREMENTS				
Harness & Lanyard		Hi-Vis Clothing	x	Respiratory Protection x
Hearing Protection		Eye Protection	x	Head Protection x
Gloves	x	Boots	x	Knee pads x

ADDITIONAL CONTROL MEASURES	
Information/Instruction/Training	
Site induction from DBR All operatives must be signed on to this risk assessment and a method statement for this task	

Physical Controls	Procedural Controls
All operatives will always wear the PPE stated in the method statement and Risk assessment. The site area will be securely segregated by means of pedestrian barriers to avoid unauthorised personal entering the DBR work area. Safety and Information signage will be displayed at all times while the works are underway.	All operatives will have received a DBR site induction. All operatives will be signed on to this risk assessment and the associated method statement. If the method of work changes, work will stop and the risk assessment and method statements will be revised accordingly before work can commence again. All work will only be carried out by an experienced conservator.

HSE & Other Guidance	Comments
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SAFETY DATA SHEETS



SAFETY DATA SHEET

LAP COLD WATER STARCH WALLPAPER ADHESIVE

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

1.1. Product identifier

Product name : LAP COLD WATER STARCH WALLPAPER ADHESIVE

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

Product use : Adhesive.

1.3. Details of the supplier of the safety data sheet

ICI Paints AkzoNobel,
Wexham Road,
Slough,
Berkshire,
SL2 5DS, U.K.
Tel.: +44 (0) 333 222 71 71
www.polycell.co.uk

e-mail address of person responsible for this SDS : polycell.advice@akzonobel.com

1.4 Emergency telephone number

Telephone number : Slough +44 (0) 1753 550000

Version : 11.01

Date of previous issue : 7-3-2016

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

Ingredients of unknown toxicity : 0%

Ingredients of unknown ecotoxicity : 0%

See Section 16 for the full text of the H statements declared above.

LAP COLD WATER STARCH WALLPAPER ADHESIVE**SECTION 2: Hazards identification**

See Section 11 for more detailed information on health effects and symptoms.

2.2. Label elements

Signal word	: No signal word.
Hazard statements	: No known significant effects or critical hazards.
<u>Precautionary statements</u>	
General	: P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand.
Prevention	: P262 - Do not get in eyes, on skin, or on clothing.
Response	: P312 - Call a POISON CENTER or doctor if you feel unwell.
Storage	Not applicable.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national or international regulations.
Supplemental label elements	: Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
<u>Special packaging requirements</u>	
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Not applicable.

2.3. Other hazards

Other hazards which do not result in classification	: None known.
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SECTION 3: Composition/information on ingredients**3.2 Mixtures** : Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

SECTION 4: First aid measures**4.1. Description of first aid measures**

General	: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
Eye contact	: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Inhalation	: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
Ingestion	: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.

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

LAP COLD WATER STARCH WALLPAPER ADHESIVE

SECTION 4: First aid measures

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

5.2. Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3. Advice for firefighters

- Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
- Special protective equipment for fire-fighters** : Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2. Environmental precautions

- : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

- : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

6.4. Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

LAP COLD WATER STARCH WALLPAPER ADHESIVE

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

- 7.1 Precautions for safe handling**
- : Avoid contact with skin and eyes. Avoid inhalation of vapour, spray or mist.
 - Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
 - Put on appropriate personal protective equipment (see Section 8).
 - Never use pressure to empty. Container is not a pressure vessel.
 - Always keep in containers made from the same material as the original one.
 - Comply with the health and safety at work laws.
 - Do not allow to enter drains or watercourses.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Store in a dry, cool and well-ventilated area. Keep container tightly closed.

No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

- Appropriate engineering controls** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction.

Individual protection measures

LAP COLD WATER STARCH WALLPAPER ADHESIVE

SECTION 8: Exposure controls/personal protection

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Use safety eyewear designed to protect against splash of liquids.
Skin protection	
Body protection	: Not applicable.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Usually no respiratory protection required. Respiratory protection in case of dust or spray mist formation. (particle filter EN143 type P2). Respiratory protection in case of vapour formation. (half mask with combination filter A2-P2 till concentrations of 0,5 Vol%.)
Environmental exposure controls	: Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties****Appearance**

Physical state	: Solid.
Colour	: Not available.
Odour	: Not available.
Odour threshold	: Not available.
pH	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: Not applicable.
Flash point	: Not applicable.
Evaporation rate	: Not available.
Upper/lower flammability or explosive limits	: Not available.
Vapour pressure	: Not available.
Vapour density	: Not available.
Relative density	: 1.107
Solubility(ies)	: Easily soluble in the following materials: cold water.
Solubility in water	: Not available.
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (room temperature): 90.33 cm ² /s
Explosive properties	: Not available.
Oxidising properties	: Not available.

9.2. Other information

No additional information.

LAP COLD WATER STARCH WALLPAPER ADHESIVE

SECTION 10: Stability and reactivity

- 10.1. Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2. Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).
- 10.3. Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4. Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.
- 10.5. Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
- 10.6. Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Acute toxicity

Conclusion/Summary : Not available.

Acute toxicity estimates

Not available.

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitisation

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Other information : Not available.

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SECTION 12: Ecological information**12.1. Toxicity**

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is not classified as hazardous to the environment.

Conclusion/Summary : Not available.

12.2. Persistence and degradability

Conclusion/Summary : Not available.

12.3. Bioaccumulative potential**12.4. Mobility in soil**

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5. Results of PBT and vPvB assessment

PBT : Not applicable.
P: Not available. B: Not available. T: Not available.

vPvB : Not applicable.
vP: Not available. vB: Not available.

12.6. Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods**Product**

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

Disposal considerations : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal considerations : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

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SECTION 14: Transport information

Information pertaining to IATA and ADN is considered not relevant since the material is not packaged in the correct approved packaging required of these methods of transport.

	ADR	IMDG
14.1 UN number	Not regulated.	Not regulated.
14.2 UN proper shipping name	Not applicable.	Not applicable.
14.3 Transport hazard class(es) Class	Not applicable.	Not applicable.
Subsidiary class	-	-
14.4 Packing group	Not applicable.	Not applicable.
14.5 Environmental hazards Marine pollutant Marine pollutant substances	No.	No. Not available.
14.6 Special precautions for user	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	
HI/Kemler number	Not available.	
Emergency schedules (EmS)		Not applicable.
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	: Not applicable.	
Additional information	-	-

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
[EU Regulation \(EC\) No. 1907/2006 \(REACH\)](#)

[Annex XIV - List of substances subject to authorisation](#)

[Annex XIV](#)

None of the components are listed.

[Substances of very high concern](#)

None of the components are listed, or the component present is below its threshold.

LAP COLD WATER STARCH WALLPAPER ADHESIVE

SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

VOC : Not available.

Europe inventory : At least one component is not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical Safety Assessment : Not applicable.

SECTION 16: Other information

CEPE code : 7

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

Full text of abbreviated H statements :
 Not applicable.

Full text of classifications [CLP/GHS] :
 Not applicable.

Date of printing : 27-9-2016

LAP COLD WATER STARCH WALLPAPER ADHESIVE

SECTION 16: Other information

Date of issue/ Date of revision : 27-9-2016

Date of previous issue : 7-3-2016

Version : 11.01

Notice to reader

IMPORTANT NOTE *The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.*

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Head Office

AkzoNobel Decorative Coatings BV, Christian Neefestraat 2, 1077 WW Amsterdam, The Netherlands



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

1.1. Product identifier

Mixture identification:

Trade name: VINAVIL UNIVERSALE

Trade code: 9037189

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

Recommended use: Consumer adhesive

Uses advised against: Data not available

1.3. Details of the supplier of the safety data sheet

Company: VINAVIL S.p.A. - Via Valtellina, 63 - 20159 Milano

tel: +(39)02-695541 (office hour 8:30-17:30) - Villadossola Plant: Tel: +(39)0324-5031 (office hours)

Responsible: vinavil@vinavil.it

1.4. Emergency telephone number

Poison Centre - Ospedale di Niguarda - Milan - Tel. +39/02/66101029

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

0 The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Special Provisions:

EUH208 Contains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

EUH208 Contains reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

EUH210 Safety data sheet available on request.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$.

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Not Relevant

3.2. Mixtures

Mixture identification: VINAVIL UNIVERSALE

Hazardous components within the meaning of the CLP regulation and related classification:

Concentration (% w/w)	Name	Ident. Numb.	Classification	Registration Number
≥ 0.025 - < 0.05 %	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	CAS:2634-33-5 EC:220-120-9 Index:613-088-00-6	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Acute Tox. 4, H302 Skin Sens. 1, H317 Aquatic Chronic 2, H411	
Specific Concentration Limits: C $\geq 0.05\%$: Skin Sens. 1 H317				

<0.0015 %	reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)	CAS:55965-84-9 EC:611-341-5 Index:613-167-00-5	Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Acute Tox. 3, H301 Skin Corr. 1C, H314 Skin Sens. 1A, H317 Acute Tox. 2, H310 Acute Tox. 2, H330 Eye Dam. 1, H318, M-Chronic:100, M-Acute:100 Specific Concentration Limits: C ≥ 0.6%: Skin Corr. 1C H314 0.06% ≤ C < 0.6%: Skin Irrit. 2 H315 C ≥ 0.6%: Eye Dam. 1 H318 0.06% ≤ C < 0.6%: Eye Irrit. 2 H319 C ≥ 0.0015%: Skin Sens. 1A H317
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SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

Wash immediately with water.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

Not available

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

Treatment:

Not available

(see paragraph 4.1)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Suitable materials for safety gloves; EN ISO 374:

Polychloroprene - CR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Nitrile rubber - NBR: thickness $\geq 0,35\text{mm}$; breakthrough time $\geq 480\text{min}$.

Butyl rubber - IIR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Fluorinated rubber - FKM: thickness $\geq 0,4\text{mm}$; breakthrough time $\geq 480\text{min}$.

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN ISO 374 for gloves and EN ISO 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Not needed for normal use. Anyway, operate according good working practices.

Hygienic and Technical measures

Not available

Appropriate engineering controls:

Not available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Appearance: liquid

Color: white

Odour: Characteristic

Odour threshold:

Melting point / freezing point: Not available

Initial boiling point and boiling range: Not available

Flammability: Not available

Upper/lower flammability or explosive limits: Not available

Flash point: Not available

Auto-ignition temperature: Not available

Decomposition temperature: Not available

pH: 4.50

Viscosity: Not available

Kinematic viscosity: Not available

Solubility in water: dispersible

Solubility in oil: insoluble

Partition coefficient (n-octanol/water): Not available

Vapour pressure: Not available

Relative density: 1.10 g/cm³

Vapour density: Not available

Particle characteristics:

Particle size: Not available

9.2. Other information

Miscibility: Not available

Conductivity: Not available

No other relevant information

SECTION 10: Stability and reactivity**10.1. Reactivity**

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicological information of the mixture:**

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified
	Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified
	Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	Not classified
	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified
	Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one a) acute toxicity LD50 Oral Rat = 1020 mg/kg

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) a) acute toxicity LC50 Inhalation Rat = 2.36000 mg/l 4h

LD50 Skin Rabbit = 660.00000 mg/kg

LD50 Oral Rat = 53.00000 mg/kg

11.2 Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration
>= 0.1%

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards

Based on available data, the classification criteria are not met

List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	CAS: 2634-33-5 - EINECS: 220-120-9 - INDEX: 613-088-00-6	a) Aquatic acute toxicity : LC50 Fish = 2.15000 mg/L b) Aquatic chronic toxicity : NOEC Algae = 0.04030 mg/L 72h b) Aquatic chronic toxicity : EC50 Algae = 0.11000 mg/L 72h b) Aquatic chronic toxicity : EC10 Algae = 0.04000 mg/L 72h b) Aquatic chronic toxicity : EC50 Daphnia = 3.27000 mg/L 48h NOEC Daphnia = 1.20000 mg/L 21d
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	CAS: 55965-84-9 - EINECS: 611-341-5 - INDEX: 613-167-00-5	a) Aquatic acute toxicity : EC50 Daphnia = 0.12 mg/L 48 a) Aquatic acute toxicity : LC50 Fish = 0.22 mg/L 96 a) Aquatic acute toxicity : EC50 Algae = 0.048 mg/L 72 b) Aquatic chronic toxicity : NOEC Algae = 0.0012 mg/L 72 b) Aquatic chronic toxicity : NOEC Fish = 0.098 mg/L - 28 d b) Aquatic chronic toxicity : NOEC Daphnia = 0.004 mg/L - 21 d

12.2. Persistence and degradability

Not available

12.3. Bioaccumulative potential

Not available

12.4. Mobility in soil

Not available

12.5. Results of PBT and vPvB assessment

No PBT, vPvB or endocrine disruptor substances
present in concentration >= 0.1%.

12.6 Endocrine disrupting properties

No endocrine disruptor substances present in concentration
>= 0.1%

12.7 Other adverse effects

Not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

A waste code (EWC) according to European List of Waste (LoW) cannot be specified, due to dependence on the usage. Contact and send to an authorized waste disposal service.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of

environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Clean waste packaging should be recycled when possible and authorized by the authority.

Hazardous waste: No

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number or ID number

Not Applicable

14.2. UN proper shipping name

Not Applicable

14.3. Transport hazard class(es)

Not Applicable

14.4. Packing group

Not Applicable

14.5. Environmental hazards

Not Applicable

14.6. Special precautions for user

Not Applicable

Road and Rail (ADR-RID) :

Not Applicable

Air (IATA) :

Not Applicable

Sea (IMDG) :

Not Applicable

14.7. Maritime transport in bulk according to IMO instruments

Not Applicable

SECTION 15: Regulatory information

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

VOC (2004/42/EC) : N.A. g/l

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EU) n. 2020/878

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Provisions related to directive EU 2012/18 (Seveso III):

Not available

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: None.

Restrictions related to the substances contained: 40, 75

Additional restrictions: Restriction 28, due to the presence of CAS 75-07-0

SVHC Substances:

SVHC substances not present in a concentration $\geq 0.1\%$ (w/w)

German Water Hazard Class (WGK)

1

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

If appropriate, specific provisions in relation to possible training for workers are mentioned in section 2. Any training related to safety in the workplace must in any case refer to a risk assessment that must be carried out by a company safety officer taking into account the specific operating and environmental conditions in which the products are used.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.



SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006

Revision date: March 2022.

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

1.1. Product identifier

Product name RTV 128 Silicone Rubber

Product number 403-873

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

Identified uses Moulding Rubber

1.3. Details of the supplier of the safety data sheet

Manufacturer / Supplier Pottery crafts Ltd / Tiranti
Campbell Road
Stoke
Stoke-on-Trent.
ST4 4ET
Tel 44 (0)1782 745000
sales@pottery crafts.co.uk / Enquiries@tiranti.co.uk

1.4. Emergency telephone number

Emergency telephone +44(0) 1782 745000 Office Hours 08:30 – 16:30 hrs Mon-Friday.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification

Physical hazards Not Hazardous

Health hazards Not Hazardous

Environmental hazards Not Hazardous

2.2. Label elements

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).
(no special label required).

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:** Void

· **non dangerous ingredients** Cas.Nr. : 70131-67-8 Dihydroxypolydimethylsiloxan

· **Additional information:** For the wording of the listed hazard phrases, refer to section 16.



SECTION 4: First aid measures

4.1. Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Generally the product does not irritate the skin.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

If swallowed, rinse mouth with water (only if the person is conscious).

Do not induce vomiting; call for medical help immediately.

If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use an inert extinguisher such as foam or carbon dioxide. Fight larger fires with water spray or alcohol resistant foam

5.2. Special hazards arising from the substance or mixture

Specific hazards Formation of toxic gases is possible during heating or in case of fire. Carbon monoxide(CO)

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Particular danger of slipping on leaked/spilled product. Wear protective clothing

6.2. Environmental precautions Contain spill safely, if possible. Prevent from entering drains, watercourses and sewers.

6.3. Methods and material for containment and cleaning up

Contain spill with inert material such as sand, earth or vermiculite. Collect and dispose of safely

6.4. Reference to other sections Refer to section 8. And 13. No dangerous substances are released.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original containers, tightly sealed. Keep containers away from any incompatible materials, see section 10 for details. Storage temperature 15-25°C

Campbell Road - Stoke on Trent, ST4 4ET - United Kingdom

Tel: +44 (0)1782 745000 - Fax: +44 (0)1782 746000 - Web: www.pottery crafts.co.uk / www.tiranti.co.uk
sales@pottery crafts.co.uk / Enquiries@tiranti.co.uk



7.3. Specific end use(s)

See section 1.2

SECTION 8: Exposure Controls/personal protection

8.1 Control Parameters

OEL Type – No Data Available

DNEL Exposure Limit Values

Not available

PNEC Exposure Limit Values

Not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. When choosing personal protective equipment, ask your chemical substance supplier for advice. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344).

Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Properties	Value
Appearance and colour:	Fluid, white
Odour:	Characteristic
Odour threshold:	Not Relevant
pH:	Not Relevant
Melting point / freezing point:	Not available
Initial boiling point and boiling range:	301°C
Flash point:	162°C
Evaporation rate:	Not available
Solid/gas flammability:	Not available
Upper/lower flammability or explosive limits:	Not Relevant
Vapour pressure:	Not available
Vapour density:	Not available
Density at 20°C	1.1 g/cm ³
Relative density:	Not available

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Solubility in water:	Insoluble
Solubility in oil:	Not available
Partition coefficient (n-octanol/water):	Not Relevant
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity: Dynamic at 20°C	60000mPas
Explosive properties:	Not Relevant
Oxidizing properties:	Not Relevant

9.2. Other information

No further relevant information available

SECTION 10: Stability and reactivity

- 10.1. Reactivity** No Specific test data related to reactivity available for this product. Not expected to be particularly reactive under normal circumstances and conditions of use.
- 10.2. Chemical stability** chemically stable under normal temperatures, recommended conditions of storage and use
- 10.3. Possibility of hazardous reactions** No hazardous reaction when handled and stored according to provisions. May react with oxidisers.
- 10.4 Conditions to Avoid** No information available
- 10.5. Incompatible materials** Incompatible with oxidizing agents, acids
- 10.6. Hazardous decomposition products** Measurements have shown that at temperatures from about 150°C by formation of small amount Formaldehyde is split off.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Irritation feasible

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class



SECTION 12: Ecological Information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

Not classified for environmental hazards

12.2. Persistence and degradability

Not Available

12.3. Bioaccumulative potential

Not available

12.4. Mobility in soil

Information not available

Additional ecological information:

Water hazard class 1 (German regulation)(Self-assessment): Slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5. Results of PBT and vPvB assessment

PBT Substances:

Not applicable

vPvB Substances:

Not applicable

12.6. Other adverse effects

Information not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods

Must not be disposed together with household garbage. Do not empty into drains.
In an appropriate facility or burn in an approved landfill
Dispose. All applicable local and national or regional rules.
Must be specially treated adhering to official regulations.

Waste disposal key:

The waste code according to the Waste Catalogue (AVV) depends on the waste producer and can therefore be different for a product. The waste code is to identify them separately from each waste producer.

Uncleaned packaging:

Recommendation:

Disposal must be made according to official regulations.

SECTION 14: Transport information

General

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15: Regulatory information

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

Labelling according to Regulation (EC) No 1272/2008 Void

- Hazard pictograms Void
- Signal word Void
- Hazard statements Void
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Waterhazard class: Water hazard class 1 (VwVwS 17.05.99): slightly hazardous for water.

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15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the

International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International

Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Hazard statements in full

This product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use are outside the supplier's control, the user is responsible for ensuring that the requirements of the relevant legislation are complied with. The information contained in this Safety Data Sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of material.

This information relates only to the specific material designated and may not be valid for such material used in combination With any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate And reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or Completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006

Revision date: March 2022.

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

1.1. Product identifier

Product name RTV128 Regular Catalyst (green)

Product number 403-873

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

Identified uses Catalyst

1.3. Details of the supplier of the safety data sheet

Manufacturer / Supplier PotteryCrafts Ltd / Tiranti
Campbell Road
Stoke
Stoke-on-Trent.
ST4 4ET
Tel 44 (0)1782 745000
sales@pottery crafts.co.uk / Enquiries@tiranti.co.uk

1.4. Emergency telephone number

Emergency telephone +44(0) 1782 745000 Office Hours 08:30 – 16:30 hrs Mon-Friday.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



Flammable

Flam. Liq. 3 H226 Flammable liquid and vapour.



Longer term health
hazards such as
carcinogenicity

Repr. 1B H360D May damage the unborn child.

STOT RE 2 H373 May cause damage to the immune system through prolonged or repeated exposure.



Caution – used for less
serious health hazards
like skin irritation

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

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2.2. Label elements

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).
(no special label required).

Hazard Pictograms



- **Signal word** Danger
- **Hazard-determining components of labelling:**
dioctyltin dilaurate
tetraethyl silicate

· Hazard statements

H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H360D	May damage the unborn child.
H335	May cause respiratory irritation.
H373	May cause damage to the immune system through prolonged or repeated exposure.

· Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

PBT Substances:	Not applicable
vPvB Substances:	Not applicable

SECTION 3: Composition/information on ingredients

3.2. Mixtures

· Dangerous components:		
CAS: 78-10-4 EINECS: 201-083-8 Reg.nr.: 01-2119496195-28	tetraethyl silicate Flam. Liq. 3, H226; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	25-50%
CAS: 3648-18-8 EINECS: 222-883-3	diocrylin dilaurate Repr. 1B, H360D; STOT RE 1, H372	2.5-5%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Take affected persons out of danger area and lay down.
Personal protection for the First Aider.
Provide oxygen treatment if affected person has difficulty breathing.
Immediately remove any clothing soiled by the product.

· After inhalation:

Supply fresh air.
In case of unconsciousness place patient stably in side position for transportation.



Provide artificial respiration if breathing has stopped.

In the case of mouth-to-mouth resuscitation, the person providing first aid should protect themselves with a mask.

In the event of breathing difficulties, give oxygen by qualified personnel. Call doctor or transport to

Arrange for a medical ambulance.

· **After skin contact:**

Remove contaminated clothing and shoes immediately.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Do not induce vomiting; call for medical help immediately.

If swallowed, rinse mouth with water (only if the person is conscious).

Call a doctor immediately.

· **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use an inert extinguisher such as foam or carbon dioxide. Sand can also be used on small fires..

5.2. Special hazards arising from the substance or mixture

Specific hazards In case of fire hazardous combustion gases or vapors possible. Exposure to combustion products can be a health hazard! Hazardous fire products: toxic and very toxic smoke gases. Formation of toxic gases is possible during heating or in case of fire. In case of fire, the following can be released:
Carbon monoxide (CO)
Carbon dioxide
Nitrogen oxides (NOx)
Tin oxide (SnO₂ / SnO)

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use breathing equipment if fumes or powders are released into the air. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions Contain spill safely, if possible. Prevent from entering drains, watercourses and sewers.

6.3. Methods and material for containment and cleaning up

Contain spill with inert material such as sand, earth or vermiculite. Collect and dispose of safely

6.4. Reference to other sections Refer to section 8. And 13.



SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials: See section 10.5.

Instructions as regards storage premises: Adequately ventilated premises.

Storage temperature 20-25°C

7.3. Specific end use(s)

See section 1.2

SECTION 8: Exposure Controls/personal protection

8.1 Control Parameters

· Ingredients with limit values that require monitoring at the workplace:		
78-10-4 tetraethyl silicate		
WEL (Great Britain)	Long-term value: 44 mg/m ³ , 5 ppm	
IOELV (European Union)	Long-term value: 44 mg/m ³ , 5 ppm	
AGW (Germany)	Long-term value: 12 mg/m ³ , 1.4 ppm 1(I);AGS	
MAK (Austria)	Short-term value: 88 mg/m ³ , 10 ppm Long-term value: 44 mg/m ³ , 5 ppm	
· DNELs		
78-10-4 tetraethyl silicate		
Dermal	DNEL Acute - systemic effects	8.4 mg/kg (General population) 12.1 mg/kg (workers)
	DNEL Long-term - systemic effects	8.4 mg/kg (General population) 12.1 mg/kg (workers)
Inhalative	DNEL Acute - systemic effects	25 mg/m ³ (General population) 85 mg/m ³ (workers)
	DNEL Long-term - systemic effects	25 mg/m ³ (General population) 85 mg/m ³ (workers)
	DNEL Acute - local effects	25 mg/m ³ (General population) 85 mg/m ³ (workers)
	DNEL Long-term exposure - local effects	25 mg/m ³ (General population) 85 mg/m ³ (workers)
3648-18-8 dioctyltin dilaurate		
Oral	DNEL Long-term - systemic effects	0.0005 mg/kg bw/day (General population)
Inhalative	DNEL Long-term - systemic effects	0.0009 mg/m ³ (General population) 0.0035 mg/m ³ (workers)
· PNECs		
78-10-4 tetraethyl silicate		
PNEC STP	4,000 mg/L (sewage plant)	
PNEC sediment	0.18 mg/kg (freshwater- sediment) 0.018 mg/kg (seawater - sediment)	
PNEC soil	0.05 mg/kg (soil (Boden))	
PNEC	0.192 mg/l (freshwater) 0.0192 mg/l (marine water) 10 mg/l (intermittent releases)	
3648-18-8 dioctyltin dilaurate		
PNEC STP	100 mg/L (sewage plant)	
PNEC sediment	0.02798 mg/kg (freshwater- sediment)	
· PNECs		
PNEC sediment	0.02798 mg/kg (seawater - sediment)	
PNEC soil	0.005593 mg/kg (soil (Boden))	
PNEC	0.0000018 mg/l (freshwater) 0.0000018 mg/l (marine water)	

(Continued on page 5)

Additional information: The lists valid during the making were used as basis.

8.2. Exposure controls

Precautionary measures:

Give adequate ventilation to the premises where the product is stored and/or handled.

Eye protection:

Wear airtight protective goggles.

Protection for skin:

Wear professional overalls and safety footwear.



Protection for hands:

Protect hands with work gloves.

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

Respiratory protection:

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered (e.g. TLV-TWA).

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Properties	Value
Appearance and colour:	Fluid, colourless
Odour:	Characteristic
Odour threshold:	Not Relevant
pH:	Not Relevant
Melting point / freezing point:	Not available
Flammability:	Flammable
Initial boiling point and boiling range:	>65 °C (63148-62-9 Dimethylsiloxan- und trimethylsiloxo-terminiert)
Flash point:	55 °C
Ignition Temperature	222 °C
Evaporation rate:	Not available
Solid/gas flammability:	Not available
Upper/lower flammability or explosive limits:	Not Relevant
Vapour pressure at 20 °C:	10 hPa
Vapour density:	Not available
Relative density:	Not available
Solubility in water:	Insoluble
Solubility in oil:	Not available
Partition coefficient (n-octanol/water):	Not Relevant
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	6500 cP Brookfield (SC4-29; 23 °C)
Explosive properties:	
Lower limit:	1.3 Vol %
Upper limit:	23 Vol %
Oxidizing properties:	Not Relevant

9.2. Other information

Important information on protection of health and environment, and on safety.

- **Auto-ignition temperature:** Product is not self-igniting.
- **Explosive properties:** Not determined.
- **Solvent content:**
- **Organic solvents:** 28.6 %
- **VOC (EC)** 280.2 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

No Specific test data related to reactivity available for this product. Not expected to be particularly reactive under normal circumstances and conditions of use.

10.2. Chemical stability

chemically stable under normal temperatures, recommended conditions of storage and use

10.3. Possibility of hazardous reactions

Forms flammable gasses/fumes

10.4 Conditions to Avoid

Keep away from sources of heat, sparks and open flames. Vapours may form explosive mixtures with air.

10.5. Incompatible materials

Incompatible with oxidising agents, acids

10.6. Hazardous decomposition products

at the termic dismantling can build formaldehyde

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<i>· LD/LC50 values relevant for classification:</i>		
63148-62-9 Dimethylsiloxan- und trimethylsilox-terminiert		
Oral	LD50	>15,400 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
78-10-4 tetraethyl silicate		
Oral	LD50	>2,500 mg/kg (rat) (OECD 423 Acute oral toxicity)
Inhalative	LC50/4 h	10 mg/l (rat) (OECD 403 Acute Inhalation Toxicity)
3648-18-8 dioctyltin dilaurate		
Oral	LD50	6,450 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
<i>· Skin corrosion/irritation irritation feasible</i> <i>· Serious eye damage/irritation Causes serious eye irritation.</i> <i>· Reproductive toxicity May damage the unborn child.</i> <i>· STOT-single exposure May cause respiratory irritation.</i> <i>· STOT-repeated exposure</i> <i>May cause damage to the immune system through prolonged or repeated exposure.</i>		
11.2 Information on other hazards		
<i>· Endocrine disrupting properties</i>		
<i>None of the ingredients is listed.</i>		

SECTION 12: Ecological Information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

63148-62-9 Dimethylsiloxan- und trimethylsiloxo-terminiert

EC50 (48 h) > 200 mg/l (*Daphnia Magna*)

78-10-4 tetraethyl silicate

LC50 (96 h) > 245 mg/l (*Brachydanio rerio*) (OECD 203 Fish, Acute Toxicity Test)

EC50 (48 h) > 75 mg/l (*Daphnia Magna*) (OECD 202 *Daphnia* sp. Acute Immobilisation Test)

EC50 (72 h) > 100 mg/l (*Pseudokirchnerella Subcapitata*) (OECD 201 Alga, Growth Inhibition Test)

EC50(3h) > 100 mg/l (activated sludge) (OECD209 Activated Sludge, Respiration Inhibition Test)

3648-18-8 dioctyltin dilaurate

LC50 (96 h) > 0.09 mg/l (*Danio Rerio*) (OECD 203 Fish, Acute Toxicity Test)

EC50 (48 h) > 0.21 mg/l (*Daphnia Magna*) (OECD 202 *Daphnia* sp. Acute Immobilisation Test)

EC50(3h) > 1,000 mg/l (activated sludge) (OECD209 Activated Sludge, Respiration Inhibition Test)

NOEC/72h 0.001 mg/l (*Desmodesmus subspicatus*) (OECD 201 Alga, Growth Inhibition Test)

ErC50 (72h) > 0.002 mg/l (*Desmodesmus subspicatus*) (OECD 201 Alga, Growth Inhibition Test)

12.2 Persistence and degradability

This product hydrolyses in water or wet soil, releasing alcohols and silicic acid.

This Product hydrolyses in water or moist air, releasing methanol and organosilicons connectione.

• **Other information:** Elimination by adsorption onto activated sludge

• **12.3 Bioaccumulative potential** No further relevant information available.

• **12.4 Mobility in soil** No further relevant information available.

• **12.5 Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

(Contd. on page 10)

GB

12.2. Persistence and degradability

This product hydrolyses in water or wet soil, releasing alcohols and silicic acid.

This Product hydrolyses in water or moist air, releasing methanol and organosilicons connectione.

• **Other information:** Elimination by adsorption onto activated sludge

• **12.3 Bioaccumulative potential** No further relevant information available.

• **12.4 Mobility in soil** No further relevant information available.

• **12.5 Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

• **Additional ecological information:**

• **General notes:**

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

WGK 3 stark wassergefährdend

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Must be specially treated adhering to official regulations.

Waste disposal key:

For this product no waste code number can be determined as per the European Waste List, since the intended use by the consumer. The waste key number must be determined in consultation with the regional waste disposal.

Uncleaned packaging:

Recommendation:

Disposal must be made according to official regulations. Packaging must be completely emptied and disposed of properly in accordance with statutory regulations. Packaging that cannot be completely emptied must be disposed of in coordination with the regional disposal company.

SECTION 14: Transport information

UN Number:	UN1292
Proper Shipping Name	Tetraethyl Silicate mixture
Class	3 (fl) Flammable Liquids
Label	3 Flammable Liquids
Packing Group	III
Environmental Hazards	Not applicable
Special precautions for user	Warning: Flammable Liquids
Hazard Identification number	30
EMS Number	F-E,S-D
Stowage category	A
Maritime transport in bulk	N/a
Transport/Additional information	Special instruction: ADNR, ADR, RID, special instruction 640 D
ADR	
Limited Quantities	5L
Excepted Quantities	Code E1 Maximum net quantity per inner packaging: 30ml Maximum net quantity per outer packaging: 1000ml
UN "Model Regulation"	UN 1292 Tetraethyl Silicate Mixture, 3, III

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms



Signal Word: Danger

Hazard-determining components of labelling:

dioctyltin dilaurate
tetraethyl silicate

· Hazard statements

H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H360D	May damage the unborn child.
H335	May cause respiratory irritation.

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sales@pottery crafts.co.uk / Enquiries@tiranti.co.uk



H373 May cause damage to the immune system through prolonged or repeated exposure.

· **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category** P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

National regulations:

Technical instructions (air)

Class Share in %

NK 25-50

Waterhazard class: Water hazard class 3 (Self-assessment): extremely hazardous for water.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H360D May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.

· **Recommended restriction of use**

Germany
Austria
Netherlands
Slovenia
Poland
Latvia
Ireland
Northern Ireland
Hungary

The information in this safety data sheet corresponds to the best of our knowledge at the time of the revision. The information should give you clues for the safe handling of the product mentioned in this safety data sheet during storage, processing, transport and disposal. The details are not transferable to other products. Insofar as the product mentioned in this safety data sheet is mixed with other materials, mixed or processed, or subjected to processing, the information in this safety data sheet, unless expressly stated otherwise, can not be transferred to the new material produced in this way.

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)

Campbell Road - Stoke on Trent, ST4 4ET - United Kingdom

Tel: +44 (0)1782 745000 - Fax: +44 (0)1782 746000 - Web: www.pottery crafts.co.uk / www.tiranti.co.uk
sales@pottery crafts.co.uk / Enquiries@tiranti.co.uk



VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Repr. 1B: Reproductive toxicity – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Hazard statements in full

This product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use are outside the supplier's control, the user is responsible for ensuring that the requirements of the relevant legislation are complied with. The information contained in this Safety Data Sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of material.

This information relates only to the specific material designated and may not be valid for such material used in combination With any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate And reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or Completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006

Revision date: March 2022.

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

1.1. Product identifier

Product name Thixo Additive (TA2)

Product number 403-888, 403-892

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

Identified uses Thixotroping Additive

1.3. Details of the supplier of the safety data sheet

Manufacturer / Supplier Pottery crafts Ltd / Tiranti
Campbell Road
Stoke
Stoke-on-Trent.
ST4 4ET
Tel 44 (0)1782 745000
sales@pottery crafts.co.uk / Enquiries@tiranti.co.uk

1.4. Emergency telephone number

Emergency telephone +44(0) 1782 745000 Office Hours 08:30 – 16:30 hrs Mon-Friday.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC regulation 1272/2008 (CLP) (and subsequent amendments and supplements)

Classification

Physical hazards Not Hazardous

Health hazards Not Hazardous

Environmental hazards Not Hazardous

2.2. Label elements

Product labelling conforms to EC Regulation 1272/2008 (CLP) (no special label required).

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%

SECTION 3: Composition/information on ingredients

3.1. Mixture

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
POLY(ETHYLENE GLYCOL) BIS(AMINE)		
CAS	24991-53-5 100	
EC		
INDEX		

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The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4: First aid measures

4.1. Description of first aid measures

Not specifically necessary. Observance of good industrial hygiene is recommended.

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

No episodes of damage to health ascribable to the product have been reported

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

Information not available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

5.2. Special hazards arising from the substance or mixture

Specific hazards

Do not breath the combustion products

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use breathing equipment if fumes or powders are released into the air. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Contain spill with inert material such as sand, earth or vermiculite. Collect and dispose of safely

6.4. Reference to other sections

Refer to section 8 for further details on personal precautions, protective equipment and emergency procedures. Refer to section 13 for further disposal details

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original containers, tightly sealed. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8: Exposure Controls/personal protection

8.1 Control Parameters

Information not available

8.2. Exposure controls

Comply with the safety measures usually applied when handling chemical substances.

HAND PROTECTION

None required.

SKIN PROTECTION

None required.

EYE PROTECTION

None required.

RESPIRATORY PROTECTION

None required, unless indicated otherwise in the chemical risk assessment.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	Straw Coloured	
Odour	Characteristic	
Odour threshold	Not available	
pH	Not available	
Melting point / freezing point	Not available	
Initial boiling point	Not available	
Boiling range	Not available	
Flash point	> 168 °C	
Evaporation Rate	Not available	
Flammability of solids and gases	Not available	
Lower inflammability limit	Not available	
Upper inflammability limit	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Vapour pressure	Not available	
Vapour density	Not available	
Relative density	1.01	
Solubility	Partially soluble in water	
Partition coefficient: n-octanol/water	Not available	
Auto-ignition temperature	Not available	
Decomposition temperature	Not available	
Viscosity	9000	
Explosive properties	Not available	
Oxidising properties	Not available	

9.2. Other information

Information not available

SECTION 10: Stability and reactivity

10.1. Reactivity	No Specific test data related to reactivity available for this product. Not expected to be particularly reactive under normal circumstances and conditions of use.
10.2. Chemical stability	chemically stable under normal temperatures, recommended conditions of storage and use
10.3. Possibility of hazardous reactions	No hazardous reaction when handled and stored according to provisions. May react with oxidisers.
10.4. Conditions to avoid	Non in particular



10.5. Incompatible materials n/a

10.6. Hazardous decomposition products n/a

SECTION 11: Toxicological information

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

Does not meet the classification criteria for this hazard class

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12: Ecological Information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

Information not available

12.2. Persistence and degradability

Information not available

12.3. Bioaccumulative potential

Information not available

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12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage > than 0.1%.

12.6. Other adverse effects

Information not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14: Transport information

General

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15: Regulatory information

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

Healthcare controls: Information not available

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16: Other information

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

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sales@potterycrafts.co.uk / Enquiries@tiranti.co.uk



- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
16. Regulation (EU) 2019/521 (XII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) – Italy

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Hazard statements in full

This product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use are outside the supplier's control, the user is responsible for ensuring that the requirements of the relevant legislation are complied with. The information contained in this Safety Data Sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of material.

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AC100

JESMONITE
MADE FROM

PRODUCT DESCRIPTION

Jesmonite® AC100 is a water-based, two-component, acrylic polymer/mineral resin system.

The system is suitable for a wide range of casting and laminating applications where the end user wants to reduce the many risks associated with conventional solvent based systems. A range of ancillary products including decorative and functional fillers, control chemicals, pigments, and glass reinforcements are also provided making the material extremely versatile. The material is suitable for internal and external use, however if used externally a sealer or suitable paint system is recommended to protect surface appearance.

SPECIFICATIONS

Mix ratio	2.5:1 parts Base to Liquids ratio by weight
Wet density	1845 kg/m ³
Dry density	1745 kg/m ³
Initial set	15 – 20 minutes (18°C, No Retarder)
Expansion on set	0.15%

OTHER PROPERTIES

Compressive strength	25 – 30 MPa
Tensile strength (UTS)	25 – 35 Mpa
Bending elastic limit (LOP)	15 – 20 Mpa
Bending strength (MOR)	50 – 65 Mpa
Youngs Modulus	5 – 6 Mpa
Impact strength (Charpy)	30 KJ/m ²
Moisture movement	<1%
EN13501-1 Fire Classification	B-s1-d0
Freeze/Thaw resistance	Excellent – Test specimens undamaged
Wet/Dry 50 cycles	Test specimens undamaged

APPLICATION AREAS

Cast and laminated decorative mouldings, and with the inclusion of suitable glass reinforcements AC100 can be used for lightweight, high-impact panels. Jesmonite AC100 provides a fire resistant coating for many expanded foams for theme park and theatre props.

KEY ATTRIBUTES

Solvent free – No VOC's
Good abrasion resistance and impact strength
High compressive and tensile strength
Rapid curing and high early strength gain

PACKAGING

Liquids are supplied in 1,5,10,20kg cannisters and base in 2.5kg bucket, 12.5 kg bucket and 25kg bag.

STORAGE

As a basic rule liquid containers should be kept well sealed to prevent water evaporation and skin forming, freezing must be avoided. They should be stored at a constant temperature between 5 – 25°C and base should be kept dry and stored at 5 – 25°C.

Jesmonite® is a Registered Trademark

The above information and recommendations are based upon our experience and are offered merely for advice. They are offered in good faith but without guarantee, as conditions and methods of use are beyond our control. It remains the responsibility of the end user to determine the suitability of the materials for the particular purpose intended.

Contact details

Jesmonite Limited
Challenge Court
Bishops Castle
Shropshire
SY9 5DW
United Kingdom

Tel: +44 (0)1588 630302
Fax: +44 (0)1588 630304
www.jesmonite.com

JESMONITE[®]

MATERIAL SAFETY DATA SHEET: QUADAXIAL FABRIC (INCL ALKALI RESISTANT)

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

Product name

JESMONITE QUADAXIAL FABRIC (INCL ALKALI RESISTANT)

Application of Product:

Glass reinforcement

Company Address:

Jesmonite Limited. Challenge Court, Bishop's Castle, Shropshire, SY9 5DW

Information in case of emergency:

Tel: +44 (0) 1588 630302 Fax: +44 (0) 1588 630304 Web: www.jesmonite.co.uk Email: sales@jesmonite.co.uk

2. COMPOSITION / INFORMATION ON COMPONENTS

Ingredients:	% Weight	Control Limit
Fibrous Glass (E-type, continuous filament) composition consisting principally of oxides of silicon, aluminium, calcium, boron and magnesium fused in an amorphous vitreous state.	>90%	To be considered as a (non respirable) "nuisance" dust. Control limits According to local regulations.
Surface sizing (complex mixture in general of silanes and polymers)	<2%	None Established
Polyester stitching fibre	0.5 - 5%	None Established

Glass fibre does not meet the classification for a 'dangerous substance' according to 67/548/EEC and 97/69/EC. Glass fibre carries no CA or EPA designation number.

CAS reference 65997-13-3.

Glass Fibre is considered to be an article as defined in section 710.2 (f) of the US TSCA and as such is exempt from section 5 and section 8 (b) reporting requirements.

3. HAZARDS IDENTIFICATION

Emergency Overview: This product is stable and not flammable under normal industrial conditions. Exposure to continuous filament glass fibres sometimes causes irritation to the skin and, less frequently, irritation of the eyes, nose or throat. The primary route of entry into the body is inhalation. The glass fibres used have diameters greater than 3.5 microns and are therefore NOT respirable, nor can they become respirable by any normal industrial processing.

Primary Route(s) of Entry: Inhalation

Sign and Symptoms of Overexposure: Rash, itching, conjunctivities, coughing, sneezing

Chronic/carcinogenity Status: See Section 11

Medical Conditions Aggravated by Exposure: None Known

EC Labelling Classification: Not a dangerous substance or preparation

4. FIRST AID MEASURES

Inhalation: Move the person to fresh air - if irritation persists, seek medical attention. Product is NOT respirable

Eye contact: Flush eyes with a large amount of water for at least 15 minutes. Seek medical attention if irritation persists. Show this sheet to the doctor.

Skin contact: Rinse with running water (at least 15 minutes). Seek medical attention if necessary. Show this sheet to the doctor.

Ingestion: Seek medical protection.

5. FIRE FIGHTING MEASURES

Flash point: Non combustible

Suitable extinguishing methods:	Not applicable
Special fire fighting procedures:	In sustained fire self-contained breathing apparatus should be worn.
Unusual fire and explosion hazards:	Not applicable
Special exposure hazards from fire:	Hazardous products of combustion of sizings and binders may be released in a sustained fire. The larger part of the glass fibre product is non-flammable E-glass.

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken if in case: material is released or spilled	No special precautions.
Environmental precautions:	Avoid worsening the dispersion. Dispose of as a solid waste in accordance with Government regulations.
Cleaning methods:	Aspiration using a dust mask or face mask rated to particulate filtration standards. Nitrile gloves or better for skin protection.

7. HANDLING AND STORAGE

Precautions to be taken in: in handling	None relative to health & safety. This product is to be considered as a non-respirable 'nuisance dust'. Control limits according to local regulations.
Precautions to be taken in storage	: For optimum perform, fabrics should be stored at a temperature less than 25°C and a relative humidity less than 65%. Sizing will degrade over time, product is recommended to be used within 12 months of manufacture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection:	Dust mask rated to particulate filtration P3 if airborne glass fibre concentrations exceed the control limit. Use local exhaust ventilation if necessary to maintain airborne levels below the established limit.
Skin Contact:	Adequate protective gloves (surgical or cotton type) may reduce skin irritation in some operations.
Eye Contact:	Safety glasses with side shields should be worn.
Other protective equipment:	Use of overalls, long trousers, and good personal hygiene will maximise comfort - a protective cream for the skin may also be useful.
Measures procedures/ references:	The American Conference of Governmental Hygienists has adopted a Threshold Limit Value (TLV) for fibrous dust of 15mg/m ³ (total) and 5mg/m ³ (respirable). The Occupational Safety and Health Administration (OSHA) does not prescribe a Permissible Exposure Limit (PEL) for fibrous glass but relies on the PEL-TWA's for nuisance dust 15mg/m ³ (total) and 5mg/m ³ (respirable).

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Form	Filament fibre
Appearance	Milky
Colour	Yellow to White
Odour	Odourless
Specific gravity	2.6 - 2.7g/m ³
Solubility	Insoluble Fibre
Melting Temp	800°C
Decomposition Temp	1653°C
Inflammation Temp	Not Applicable
Self-combusting Temp	Not Applicable
Explosiveness	Not Applicable
Steam Pressure	Not Applicable
Solvent Solubility	Not Applicable

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	None known
Incompatibility (Material to Avoid):	None known

11. TOXICOLOGICAL INFORMATION**Factors in fibre toxicity:**

Fibre dimensions and degree of exposure.

Fibre dimensions:

Fibres of diameter larger than 3.5 microns are deemed as non-respirable. The fibres do not becoming respirable upon the sanding/machine processing activities of our customers. Upon fibre breakage, the fibres break horizontally into smaller lengths, but not longitudinally into smaller diameters.

Degree of exposure:

Not applicable.

Carcinogenicity:

The International Agency for Research on Cancer has designated continuous filament fibre glass, as a group 3, 'not classifiable as to human carcinogenicity'. This means that evidence is not sufficient to link that fibre to cancer.

12. ECOLOGICAL INFORMATION

Glass fibre is generally considered to be an inert solid waste not requiring special precautions in the event of accidental release or spillage.

13. DISPOSAL CONSIDERATIONS

There are no special precaution or restrictions involving transport of E glass fibre known to Formax UK Limited

14. TRANSPORT INFORMATION

There are no special precauions or restrictions involving transport of E-glass fibre known to Jesmonite Ltd

15. REGULATORY INFORMATION

Glass fibres are considered in Europe under the EC regulations as being additives when used as reinforcements for plastics that are intended to come into direct or indirect contact with food and as such have been listed in Annex III of Directive 96/11/EC under PM/Reference No. 55520 with no restrictions mentioned in the pertaining table.

16. OTHER INFORMATION

If you have any queries relating to this MSDS, it's contents or any other product safety related questions, please write to the following email address. Sales@jesmonite.co.uk

The data contained in this safety data sheet are based on our current knowledge and experience and describe the prodcut only with regard to safety requirements. The data do not describe the product's properties(product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

MATERIAL SAFETY DATA SHEET: THIXOTROPE

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

Product name

JESMONITE THIXOTROPE

Application of Product:

Thickening agent for Jesmonite acrylic composites.

Company Address:

Jesmonite Limited. Challenge Court, Bishop's Castle, Shropshire, SY9 5DW

Information in case of emergency:

Tel: +44 (0) 1588 630302 Fax: +44 (0) 1588 630304 Web: www.jesmonite.co.uk Email: sales@jesmonite.co.uk

2. COMPOSITION / INFORMATION ON INGREDIENTS

No.	CAS Reg No.	Weight (%)
1 Polyurethane resin	Not hazardous	19 – 21
2 Water	7732 – 18 – 5	79 – 81

3. HAZARDS IDENTIFICATION

Primary route of exposure**Inhalation and skin contact**

Inhalation: Inhalation of vapour or mist can cause the following: headache – nausea – irritation of the nose, throat and lungs.

Skin contact: Prolonged or repeated skin contact can cause the following slight skin irritation.

Eye contact: Direct contact with material can cause the following slight irritation.

4. FIRST AID MEASURES

Inhalation: Move subject to fresh air.

Eye contact: Flush eyes with a large amount of water for at least 15 minutes. Consult a physician if irritation persists.

Skin contact: Wash affected area thoroughly with soap and water. Consult a physician if irritation persists.

Ingestion: If swallowed, give 2 glasses of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash point Non combustible

Auto-ignition temperature N/A

Lower explosive limit N/A

Upper explosive limit N/A

Extinguishing agents Use extinguishing media appropriate for surrounding fire

Unusual hazards Material can splatter above 100 °C/212 °F. Polymer film can burn

Personal protective equipment Wear self-contained breathing apparatus (pressure demand MSHA/NIOSH apparatus or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal protection Appropriate protective equipment must be worn when handling a spill of this material. See Personal Protection Measures section for recommendations. If exposed to material during clean up operations, see the First Aid Procedures section for actions to follow.

Procedures Keep spectators away. Floor may be slippery: use care to avoid falling. Contain spills immediately with inert materials (e.g. sand, earth). Transfer liquids and solid dyking material to separate suitable containers for recovery or disposal.

Caution Keep spills and cleaning run off out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

Storage conditions Keep from freezing; material may coagulate. The minimum recommended storage temperature for this material is 1 °C/24 °F. The maximum recommended storage temperature for this material is 49 °C/120 °F.

Handling procedures Monomer vapours can be evolved when material is heated during processing operations. See section 8, Control Measures, for types of ventilation required.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

No.	CAS Reg No.	Weight (%)
1 Polyurethane resin	Not hazardous	19 – 21
2 Water	7732 – 18 – 5	79 – 81

No.	Units	OSHA		ACGIH
		TWA	STEL	TWA
1	None	None	None	None
2	None	None	None	None

Personal Protection

Respiratory protection

None required under normal operating conditions. When mist occurs during spraying operations, wear a MSHA/NIOSH – approved (or equivalent) disposable half mask dust/mist respirator.

Hand protection

The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection: Neoprene.

Eye protection

Use chemical splash goggles (ANSI Z87.1 or approved equivalent).

Ventilation

Use local exhaust with a minimum capture velocity of 100 ft/min. (30 m/min) at the point of vapour evolution. Refer to the current edition of Industrial Ventilation: A manual of recommended practice published by the American Conference of Governmental Industrial Hygienists for information on design, installation, use and maintenance of exhaust systems.

Other protective equipment

Facilities storing or utilising this material should be equipped with an eye wash facility

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Milky, translucent
Physical form	Liquid
Colour	White
Odour	Mild odour
pH	6.0 – 7.5
Viscosity	3800 CPS maximum
Specific gravity (water = 1)	1.0 – 1.2
Vapour density (air = 1)	<1 water
Vapour pressure	17mm Hg @ 20°C/ 68°F water
Boiling point/boiling range	100°C/212°F
Melting point/melting range	-2°C/28°F
Solubility in water	Dilutable
Percent volatility	79 – 81% water
Evaporation rate (BAC = 1)	< 1 water

10. STABILITY AND REACTIVITY

Stability of substance This material is considered stable. However, avoid temperatures above 177°C/350°F, the onset of polymer decomposition. Thermal decomposition is dependent on time and temperature.

Hazardous

decomposition products There are no known hazardous decomposition products for this material.

Hazardous polymerisation

Product will not undergo polymerisation.

Incompatibility

There are no known materials which are incompatible with this product.

11. TOXICOLOGICAL INFORMATION

Acute toxicity data for compositionally similar material:

Oral LD50 – rat:	>5000mg/kg
Dermal LD50 – rabbit:	>5000mg/kg
Skin irritation – rabbit:	Slight irritant
Eye irritation – rabbit:	Inconsequential irritation

12. ECOLOGICAL INFORMATION

No applicable data.

13. DISPOSAL CONSIDERATIONS

Waste disposal – procedure

Incinerate liquid and contaminated solids in accordance with local, state and federal regulations.

14. TRANSPORT INFORMATION

Us DOT hazard class – Non regulated

15. REGULATORY INFORMATION

This product is considered non-hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). This product is not 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS).

No.	CAS Reg No.	Weight (%)
1 Polyurethane resin	Not hazardous	19 – 21
2 Water	7732	18 – 5

16. OTHER INFORMATION

Abbreviations

ACGIH = American Conference of Governmental Industrial Hygienists

OSHA	=	Occupational Safety and Health Authority
TLV	=	Threshold Limit Value
PEL	=	Permissible Exposure Limit
TWA	=	Time Weighted Average
STEL	=	Short Term Exposure Limit
BAC	=	Butyl acetate

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