

kley.

Polymer Timber Flooring Adhesive

4 in 1 Product

timber flooring adhesive
in-built moisture barrier
acoustic barrier
easy application





Polymer Timber Flooring Adhesive

Kley polymer timber flooring adhesive is a high-performance MS polymer flooring adhesive for optimal performance and ease of application. Kley is a 4 in 1 formulation with superior adhesion with sound reduction and moisture control properties.

Product Benefits

- Extreme Moisture Resistance
- Superior Acoustic Properties
- Low VOC compliant (solvent and isocyanate free)
- Easy application

Suitable Applications

Kley is suitable for bonding most timber flooring systems to concrete, plywood, cured leveling compound, epoxy membranes, particle board, radiant heated subfloors, and most aerated concrete subfloor systems including Hebel.

Technical Specifications

Adhesive Polymer	Modified Silane Polymer - Single Part
Tensile Strength	1.6 N/mm ²
Shore A Hardness	40 ±
Elongation at Break	180%
VOC Content	< 10g / liter
Tack Free Time	20-40 minutes
Working Time	30 minutes (20°C at 50% R.H.)
Shelf Life	12 months (unopened)
Storage	Store in a dry place between 5°C and 30°C

Subfloor Concrete Surface Preparation

- Ensure the subfloor surface is structurally sound, flat, smooth, clean, with no indentations and anti-adherents.
- Subfloor must be free of dust, dirt, grease, wax, loose paint, oil, sealers of any type, curing compounds, bond breakers, asphaltic residue, liquid adhesive remover, strippers, chemicals, or any other foreign substances that can potentially affect bonding. Cleaning the subfloor of loose particles with an industrial vacuum cleaner is recommended.
- If direct applying the adhesive to the subfloor, it must be flat to maximum 3mm over 3 meters, otherwise it will increase the risk of hollow spots and poor adhesion under the timber flooring.
- Any existing coating or adhesives must be completely removed. Mechanical treatment (e.g. shot blasting, grinding or sanding) may be required to achieve subfloor conditions mentioned above.
- It is recommended to assess slab moisture. If the slab is more than 3.5% moisture content measured with a concrete impedance moisture meter or more than 80% in-slab relative humidity, then additional means of protecting the floor from slab moisture is needed. Please discuss technical requirements with Woodcut consultant for any floors with high moisture or relative humidity readings
- Radiant heated subfloors should be turned off 24 hours prior to and during installation to prevent premature curing of the adhesive.
- Recommended air temperature during floor installation – between 10°C - 35°C and relative humidity between 40% and 80%, subject to the requirements specified in the flooring installation requirements.

Timber Subfloor Surface Preparation

- For use over particleboard, all surfaces should be rough sanded, including sanding flat all joints. Ensure the surface is clean, dry, sound and does not squeak prior to laying the timber flooring.
- For use over clean plywood all joints should be sanded flat. Ensure the surface is clean, dry, sound and does not squeak prior to laying the timber flooring.



Polymer Timber Flooring Adhesive

Adhesive Application

- Remove the lid and cut open the foil liner. Once liner is opened, we recommend using all the contents of the bag.
- Spread the adhesive with the proper notched trowel, apply uniformly on the subfloor. Avoid adhesive pools and excessive adhesive thickness by passing the trowel evenly through the adhesive at a 45-degree angle.
- Floor installation is by a full adhesive bed and to the flooring manufacturer's instructions.
- A minimum 80% adhesive contact of the adhesive to the board is recommended and if the adhesive is required to assist with moisture vapour protection, then 100% coverage needs to be achieved. Place heavy objects to hold the flooring firmly in place during the curing time. If boards are bowed preventing adequate contact then it may be necessary to sort out and not lay such boards.
- When installing near a solid object or wall, leave the necessary room for expansion as outlined by the flooring manufacturer. Installing wood too tight against a stationary object will not allow room for normal wood expansion, which may cause a failure.
- If wedges or weights have been used during the installation to hold wood in place while adhesive dries, remove wedges after initial setting of the adhesive (approximately 2 hours) to allow for normal expansion of wood. Failure to remove wedges can cause the wood flooring to buckle and pop off the subfloor.
- Restrict foot traffic for a minimum of 12-16 hours. Wait a minimum of 24 hours before sanding and polishing.
- Kley can be cleaned up with acetone or mineral spirits when wet, noting that cured adhesive can only be removed mechanically.

Moisture & Sound Control

- When bonding to timber subfloors an minimum of 80% subfloor coverage with a ≥ 4 mm V notch trowel is recommended which will give a coverage rate of 12-15m² per 15kg pail.
- When bonding to concrete subfloors refer to the below recommendations:
- Bonding only: use ≥ 4 mm V notch trowel with 80% minimum subfloor coverage – coverage rate of 12-15m² per 15kg pail.
- Moisture Control and Bonding: use ≥ 5 mm V notch trowel with 100% subfloor coverage - coverage rate of 9-12m² per 15kg pail.
- Moisture Control, Acoustic Control and Bonding: 6mm V notch trowel with 100% subfloor coverage - coverage rate of 7-10m² per 15kg pail. Kley will achieve the BCA requirement of less than LnT, w < 62 based on a 200mm concrete subfloor.
- Always lift a board at the beginning of and during installation to ensure coverage is meeting the above-mentioned contact coverage requirements.
- This product can provide protection from slab moisture vapour but does not eliminate all possible moisture related or installation related issues (e.g. water leaks, wet mopping, hydrostatic head or puddles).
- This product should not be exposed to water or alcohol cleaners before it is completely cured.

Product Limitations

- Do not use on wet, dusty, contaminated, or friable substrates.
- Do not dilute the adhesive.
- Resistant only to the following: water, dilute acids, diluted caustic solutions, temporarily resistant to fuel, animal fats and oils, not resistant to organic acids, concentrated caustic solutions.
- Will not prevent damage to wood flooring induced by excessive moisture transmission due to environmental factors like water leaks.

Health & Safety

Health and Safety: Keep out of reach of children. Contains aminosilane. May produce an allergic reaction. Safety data sheet available on request. Users must first read the Safety Data Sheet. Users should familiarize themselves with all the safety aspects of the product prior to usage.

Product Disclaimer

Since the use and application of this product is beyond our control, Woodcut cannot be held responsible for product field performance if all application recommendations are not adhered to. The information presented above is the result of our considerable experience with this product but is not to be construed as a performance warranty. In any cases of possible concern it is recommended that the customer conducts their own testing and accordingly determine, to their satisfaction, its suitability for their purpose under the operating conditions in which they will use the product/s.

For additional information, phone customer support on +61 3 9338 9511. October 2021 - This Data Sheet supersedes those previously issued



Polymer Timber Flooring Adhesive

ACOUSTIC DATA

RESULTS

Our tests give the following results:

Table 1: Test Result Summary – Floor impact tests

TEST SYSTEM	L'NTW
1 Bare concrete slab 200mm concrete	64
2 1m ² of 14.3mm Engineered Timber flooring sample (Glued – Kley Polymer Adhesive)	51

Appendix C contains the Test Certificates detailing the 1/3 octave band results for this report in terms of L'nT,w following ISO 717 - 2: 2020.

L'nT,w is a term used in the Building Code of Australia (BCA - see Appendix A) and represents a corrected room noise level, with a lower number showing better performance.

NOTES

- In our experience, test samples are similar in performance to an entirely laid floor \pm 2dB.
- The impact layer must be laid strictly following the manufacturer's recommended procedures to ensure that the maximum rating is achieved. We recommend a minimum of 5mm clearance around the floor's perimeter to avoid pressure on walls and adjacent surfaces. This clearance is to be sealed with a resilient sealant or a foam backing rod.
- The levels of insulation can be considered as follows;

ISO RATING	STAR RATING	PERCEPTION
L'nT,w 70	No rating	All floor impacts clearly audible (e.g. dropping comb on floor)
L'nT,w 65	2 Star	Footsteps on tiled or parquetry floors clearly audible below
L'nT,w 60	2 Star	Footsteps on tiled or parquetry floors audible below;
L'nT,w 55	3 Star	Footsteps on tiled or parquetry floors audible below
L'nT,w 50	4 Star	Footsteps on tiled or parquetry floors barely audible below
L'nT,w 45	5 Star	Footsteps on tiled or parquetry floors normally inaudible below
L'nT,w 40	6 Star	Footsteps on tiled or parquetry floors near inaudible below

- The noise measurement manual prepared by the Queensland Government states that, "The following tables are useful references when providing a qualitative description to related changes in sound pressure levels dB (A).

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ACOUSTIC DATA

Table 5: Subjective effect of changes in the noise level

Change in level of dB	Subjective effect
3	Just perceptible
5	clearly perceptible
10	Twice as loud

Table 6: Estimated community response

Amount in dB(A) by which the rating level exceeds the noise criterion	Estimated community response	
	Category	Description
0	None	No observed reaction
5	Little	Specific complaints
10	Medium	Widespread complaints
15	Strong	Threat of community action
20	Very strong	Vigorous community action

Source Bruel & Kjaer

APPENDIX B CALCULATION METHODOLOGY - $L'_{nT,w}$

Correction to the signal level for background noise – ISO 16283-2:2015

If $(L_{sb} - L_b) > 10$, then $L = L_{sb}$

If $10 > (L_{sb} - L_b) > 6$, then $L = 10 \log \left(10 \frac{L_{sb}}{10} - 10 \frac{L_b}{10} \right)$

If $6 > (L_{sb} - L_b)$, then $L = L_{sb} - 1.3$

L is the adjusted signal level, in decibels;

L_{sb} is the level of signal and background noise combined, in decibels;

L_b is the background noise level, in decibels.

Standardised impact sound pressure level – ISO 16283-2:2015

$$L'_{nT} = L_i - 10 \log \left(\frac{T}{T_0} \right)$$

L'_{nT} is the standardised impact sound pressure level;

L_i is the impact sound pressure level;

T is the reverberation time in the receiving room;



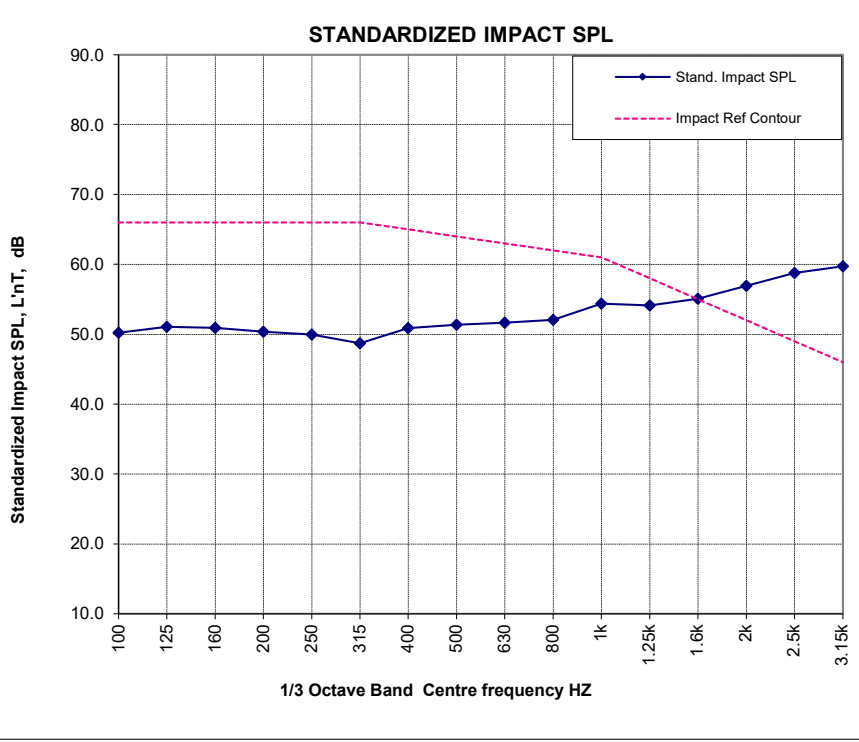

T_0 is the reference reverberation time in the receiving room; for dwellings, $T_0 = 0.5$ s.

Method of comparison – ISO 717-2:2013

To evaluate the results of a measurement of L'_{nT} in one-third-octave bands, the reference curve is shifted in increments of 1 dB towards the L'_{nT} curve until the sum of unfavourable deviations is as large as possible but not more than 32.0 dB.

An unfavourable deviation at a particular frequency occurs when the results of measurements exceed the reference value. Only the unfavourable deviations are taken into account.

The value, in decibels, of the reference curve at 500 Hz, after shifting in accordance with this procedure is $L'_{nT,w}$.

																																																																															
		Member Firm: AAAC																																																																													
Association of Australasian Acoustical Consultants																																																																															
FIELD IMPACT SOUND INSULATION - TEST CERTIFICATE																																																																															
		Test	1 of 2																																																																												
Bare concrete slab																																																																															
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	Woodcut		Receiving Room Volume: 133 m ³																																																																												
Test Performed:	Hasitha Gallage																																																																														
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Ph (61 7) 3802 2155		www.palmeracoustics.com																																																																													

FIELD IMPACT SOUND INSULATION - TEST CERTIFICATE

Test 2 of 2

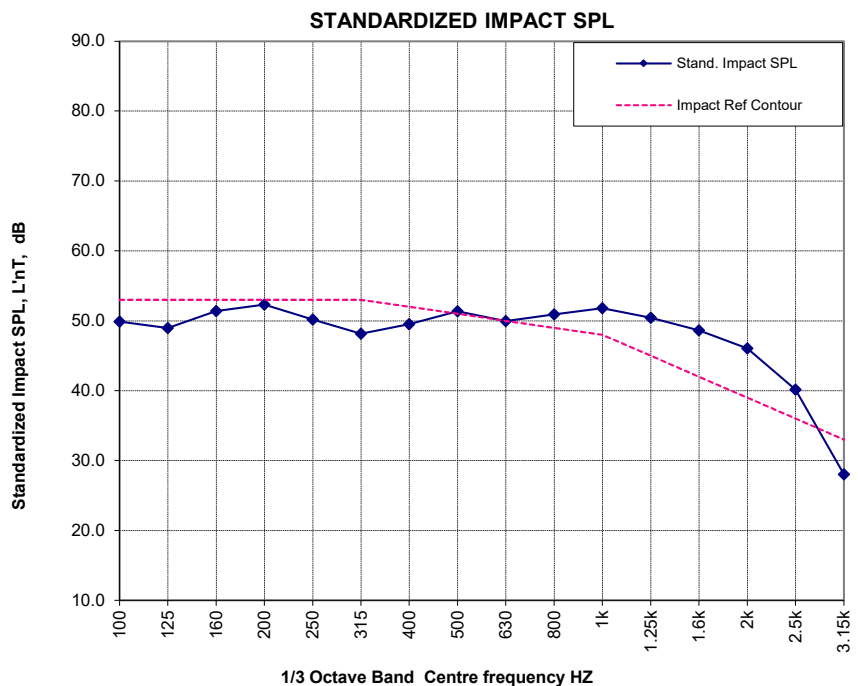
14.3mm Engineered Timber flooring sample (Glued)

PROJECT: PN5469 U1305 Luminaire, 20 Festival Pl, Newstead LNT
Test Location: Level 13 U1305 Living Room to Level 12 U1205 Living Room
Client: Woodcut
Test Performed: Hasitha Gallage
Meas. Date: 17-Feb-2022
Meas. Parameter: LLeq
Tapping Machine: Look Line EM50
Receiving Room Volume: 133 m³

DESCRIPTION OF FLOOR AND SPECIMEN
 Test Surface: 14.3mm Engineered Timber flooring sample (Glued)
 Underlay:
 Adhesive: Kley Polymer Adhesive
 Ceiling: 13mm Plasterboard + 175mm cavity
 Slab: 200mm Concrete
No. of Source posn: 2
Mic. posn: 2 sweeps
RT meas: 5 Imp.
SLM: Nor 140

Weighted Standardized Impact SPL **L'nT,w** **51** ISO 16283-2:2015 & 717-2:2013
 Results standardized to a RT of 0.5 seconds

Centre Frequency Hz	Stand. Impact SPL dB	Impact Ref Contour dB	Deficiencies dB
100	49.9	53	
125	49.0	53	
160	51.4	53	
200	52.3	53	
250	50.2	53	
315	48.1	53	
400	49.5	52	
500	51.3	51	0.3
630	50.0	50	
800	50.9	49	1.9
1k	51.8	48	3.8
1.25k	50.4	45	5.4
1.6k	48.6	42	6.6
2k	46.0	39	7.0
2.5k	40.1	36	4.1
3.15k	28.0	33	
Total			



L'nT,w 51 29.2

Material Safety Data Sheet (MSDS)



POLYMER FLOORING ADHESIVE

Kley

Version No: 1.1
Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Hazard Alert Code: 0

Issue Date: 20/05/2022
Print Date: 20/05/2022
S.GHS.AUS.EN

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

Product Identifier

Product name	POLYMER FLOORING ADHESIVE
Synonyms	Not Available

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

Relevant identified uses	Flooring adhesive
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Details of the supplier of the safety data sheet

Registered company name	Kley
Address	2A/429 Cooper St Epping VIC Australia
Telephone	+61 3 9338 9511
Website	www.kley.com.au

Emergency telephone number

Association / Organisation	Kley
Emergency telephone numbers	+61 3 9338 9511

SECTION 2 Hazards identification

Classification of the substance or mixture

NON-HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	Not Applicable
Classification [1]	Not Applicable

Label elements

Hazard pictogram(s)	Not Applicable
Signal word	Not Applicable

Hazard statement(s)

Not Applicable

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

POLYMER FLOORING ADHESIVE

Not Applicable
Not Applicable

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
Not Available	to 100	All substances - non-hazardous
Legend: 1. Classification drawn from HCIS; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 3. Classification drawn from C&L; * EU IOELVs available		

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with eyes: <ul style="list-style-type: none"> ▶ Wash out immediately with water. ▶ If irritation continues, seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: <ul style="list-style-type: none"> ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none"> ▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▶ Other measures are usually unnecessary.
Ingestion	<ul style="list-style-type: none"> ▶ Immediately give a glass of water. ▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

- ▶ There is no restriction on the type of extinguisher which may be used.
- ▶ Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.
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Advice for firefighters

Fire Fighting	<ul style="list-style-type: none"> ▶ Use water delivered as a fine spray to control fire and cool adjacent area. ▶ Do not approach containers suspected to be hot. ▶ Cool fire exposed containers with water spray from a protected location. ▶ If safe to do so, remove containers from path of fire. ▶ Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	<ul style="list-style-type: none"> ▶ Non combustible. ▶ Not considered a significant fire risk, however containers may burn.
HAZCHEM	Not Applicable

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	<ul style="list-style-type: none"> ▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Control personal contact with the substance, by using protective equipment. ▶ Contain and absorb spill with sand, earth, inert material or vermiculite. ▶ Wipe up. ▶ Place in a suitable, labelled container for waste disposal.
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POLYMER FLOORING ADHESIVE

Major Spills	<ul style="list-style-type: none"> ▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Control personal contact with the substance, by using protective equipment. ▶ Prevent spillage from entering drains, sewers or water courses. ▶ Recover product wherever possible. ▶ Put residues in labelled containers for disposal. ▶ If contamination of drains or waterways occurs, advise emergency services.
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Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	<p>Product is moisture sensitive; handle under a dry, inert gas. Nitrogen with less than 5 ppm each of moisture and oxygen is recommended</p> <ul style="list-style-type: none"> ▶ Limit all unnecessary personal contact. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Avoid contact with incompatible materials. ▶ When handling, DO NOT eat, drink or smoke. ▶ Keep containers securely sealed when not in use. ▶ Avoid physical damage to containers. ▶ Always wash hands with soap and water after handling. ▶ Work clothes should be laundered separately. ▶ Use good occupational work practice. ▶ Observe manufacturer's storage and handling recommendations contained within this SDS. ▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
Other information	Consider storage under inert gas.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ Polyethylene or polypropylene container. ▶ Packing as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	<p>Avoid contamination of water, foodstuffs, feed or seed.</p> <p>None known</p> <ul style="list-style-type: none"> ▶ NOTE: May develop pressure in containers; open carefully. Vent periodically. ▶ Segregate from alcohol, water.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
POLYMER FLOORING ADHESIVE	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
POLYMER FLOORING ADHESIVE	Not Available	Not Available

Exposure controls

Appropriate engineering controls	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.</p>
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Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air)	0.25-0.5 m/s (50-100 f/min)

POLYMER FLOORING ADHESIVE

aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

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

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Personal protection	
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Eye and face protection	<ul style="list-style-type: none"> ▶ Safety glasses with side shields ▶ Chemical goggles. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]
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Skin protection	See Hand protection below
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Hands/feet protection	<p>Wear general protective gloves, eg. light weight rubber gloves.</p> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> · frequency and duration of contact, · chemical resistance of glove material, · glove thickness and · dexterity <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> · When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. · When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. · Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. · Contaminated gloves should be replaced. <p>As defined in ASTM F-739-96 in any application, gloves are rated as:</p> <ul style="list-style-type: none"> · Excellent when breakthrough time > 480 min · Good when breakthrough time > 20 min · Fair when breakthrough time < 20 min · Poor when glove material degrades <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> · Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of. · Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p>
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Body protection	See Other protection below
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Other protection	No special equipment needed when handling small quantities. OTHERWISE: <ul style="list-style-type: none"> ▶ Overalls. ▶ Barrier cream. ▶ Eyewash unit.
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SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Moisture sensitive. Brown colour		
Physical state	Liquid	Relative density (Water = 1)	1.6-1.7
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Reacts	pH as a solution (Not Available%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Ingestion	The material has NOT been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

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Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.	
POLYMER FLOORING ADHESIVE	TOXICITY	IRRITATION
	Not Available	Not Available
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

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

Legend: ✗ – Data either not available or does not fill the criteria for classification
 ✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

POLYMER FLOORING ADHESIVE	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECECOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

Persistence and degradability

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

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	<p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> ▶ Reduction ▶ Reuse ▶ Recycling ▶ Disposal (if all else fails) <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</p> <ul style="list-style-type: none"> ▶ DO NOT allow wash water from cleaning or process equipment to enter drains. ▶ It may be necessary to collect all wash water for treatment before disposal. ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▶ Where in doubt contact the responsible authority. ▶ Recycle wherever possible. ▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material). ▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
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SECTION 14 Transport information

Labels Required



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Marine Pollutant	NO
HAZCHEM	Not Applicable

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

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

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

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

Not Applicable

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

Product name	Group
All substances - non-hazardous	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
All substances - non-hazardous	Not Available

SECTION 15 Regulatory information

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

National Inventory Status

National Inventory	Status
Australia - AIIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes

Legend: Yes = All CAS declared ingredients are on the inventory
No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	20/05/2022
Initial Date	25/03/2022

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average
PC-STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit
IDLH: Immediately Dangerous to Life or Health Concentrations
ES: Exposure Standard
OSF: Odour Safety Factor
NOAEL: No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index
AIIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List



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IECSC: Inventory of Existing Chemical Substance in China
EINECS: European Inventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory
KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances
TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory
INSQ: Inventario Nacional de Sustancias Químicas
NCI: National Chemical Inventory
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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