morleys

Stairnosings, Flooring Adhesives & Accessories

STAIRNOSINGS SAFETY DOCUMENTATION PACK

Contents:

01 January 2017

SAFETY DATA SHEET

morleys
Stairnosings, Flooring Adhesives & Accessories

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

Product identifier

Name of the substance	Aluminium Alloy 6000-series
Trade name of the substance	ALUMINIUM ALLOY 6000-SERIES
Identification No.	7429-90-5
Registration number	N/A
Synonyms	Aluminium Alloy 6000-series
SDS number	162005
Date of first issue	24-January-2009
Version number	05
Revision date	01-October-2013
Supersedes date	09-April-2011

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

Identified uses	Manufacturing of various parts and products. Manufacture of basic metals, including alloys.
Uses advised against	-

Details of the supplier of the safety data sheet

Supplier

Company name	Morleys (2013) Ltd
Address	Unit 20, Higher Walton Mill Higher Walton, Preston PR5 4DJ
Telephone number	01772 626700
e-mail	sales@morleys2013.co.uk
Contact person	sales@morleys2013.co.uk

Section 2: Hazards identification

Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This substance does not meet the criteria for classification according to Directive 67/548/EEC as amended.

Classification according to Regulation (EC) No 1272/2008 as amended

This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary

Physical hazards	Not classified for physical hazards.
Health hazards	Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	Solid aluminium does not present an inhalation hazard. Elevated temperatures or mechanical action may form dust and fumes which may be irritating to the eye, mucous membranes and respiratory tract. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain. The effects might be delayed. Molten material will produce thermal burns. Mechanical processing may generate dust. Suspensions of aluminium dust in air may pose a severe explosion hazard, especially in confined atmosphere.
Main symptoms	Irritation of nose and throat. Irritation of eyes and mucous membranes.

Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains:	Aluminium Alloy 6000-Series
Identification No.	7429-90-5
Hazard statements	The substance does not meet the criteria for classification.

Precautionary statements

Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.

Supplemental label information None.

Other hazards Not a PBT or vPvB substance or mixture.

Section 3: Composition/information on ingredients

Substance

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Aluminium Alloy 6000-Series	100	7429-90-5 231-072-3	N/A	-	

Classification: **DSD:** -

CLP: -

Constituents

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Aluminium	95 - 99	7429-90-5 231-072-3	01-2119529243-45-0024	-	-
Silicon	< 2	7440-21-3 231-130-8	01-2119480401-47-0062	-	-
Iron	< 3	7439-89-6 231-096-4	01-2119462838-24-0132	-	-
Manganese	< 0.7	7439-96-5 231-105-1	01-2119449803-34-0017	-	-
Copper	< 0.3	7440-50-8 231-159-6	01-2119480154-42-0006	-	-

Composition comments This product is covered by the registration requirement under the REACH Regulation 1907/2006 of its constituents: aluminium, silicon, iron, manganese, copper. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The alloy contains additional alloying elements at concentrations below disclosure requirements. At temperatures above the melting point the alloys may liberate fumes containing oxides of alloying elements. For more detailed chemical composition, refer to the certificate of analysis.

Section 4: First aid measures

General information Get medical attention if any discomfort continues. Seek medical attention for all burns, regardless how minor they may seem. Show this safety data sheet to the doctor in attendance.

Description of first aid measures

Inhalation	In case of exposure to fumes or particulates: Move to fresh air. Get medical attention if discomfort persists.
Skin contact	Contact with dust: Wash with soap and water. Get medical attention if irritation develops or persists. In case of contact with molten product, cool rapidly with water and seek immediate medical attention. Do not attempt to remove molten product from skin because skin will tear easily. Cuts or abrasions should be treated promptly with thorough cleansing of the affected area.
Eye contact	Do not rub eyes. Remove any contact lenses. Flush eyes thoroughly with water, taking care to rinse under eyelids. If irritation persists, continue flushing for 15 minutes, rinsing from time to time under eyelids. If discomfort continues, consult a physician.
Ingestion	Rinse mouth thoroughly if dust is ingested. Do not induce vomiting. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed Irritation of eyes and mucous membranes. Irritation of nose and throat.

Indication of any immediate medical attention and special treatment needed Treat symptomatically. The effects might be delayed.

Section 5: Firefighting measures

General fire hazards

Not a fire hazard unless in particle form. Suspensions of aluminium dust in air may pose a severe explosion hazard. A potential for explosion exists for a mixture of fine and coarse particles if at least 15% to 20% of the material is finer than 44 microns (325 mesh). Buffing and polishing generate finer material than grinding, sawing and cutting. Do not use water on molten metal: Explosion hazard could result.

Extinguishing media

Suitable extinguishing media

Not a fire hazard unless in particle form (small chips, fine turnings, dusts). In case of aluminium fires, use a class D dry-powder extinguisher (Lith-X). Dry sand.

Unsuitable extinguishing media

Do not use water or halogenated extinguishing media.

Special hazards arising from the substance or mixture

Fire or high temperatures create: Metal oxides.

Advice for firefighters

Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special firefighting procedures

Move container from fire area if it can be done without risk.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Aluminium in the form of particles may be reactive. Its hazardous characteristics, including fire and explosion, should be considered prior to handling. Ensure adequate ventilation. Avoid inhalation of dust and contact with skin and eyes. Wear protective clothing as described in section 8 of this safety data sheet.

For emergency responders

Use personal protection as recommended in Section 8 of the SDS.

Environmental precautions

Avoid release to the environment.

Methods and material for containment and cleaning up

Allow spilled material to solidify and scrape up with shovels into a suitable container for recycle or disposal. Collect dust or particulates using a vacuum cleaner with a HEPA filter.

Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

Precautions for safe handling

Welding, burning, sawing, brazing, grinding or machining operations may generate fumes and dusts of metal oxides. Provide adequate ventilation. Use appropriate tools. Avoid generation and spreading of dust. Avoid contact with sharp edges and hot surfaces. Avoid inhalation of dust and contact with skin and eyes. Wear appropriate personal protective equipment.

Because of the risk of explosion, aluminium ingots, sows and T-bars should be thoroughly dried prior to remelting. Use standard techniques to check metal temperature before handling. Hot aluminium does not present any warning color change. Exercise great caution, since the metal may be hot. For more information on the handling and storage of aluminium, consult the following documents published by Aluminum Association, 900 19th St., N.W., Washington D.C., 20006: Guidelines for handling molten aluminum; Recommendation for storage and handling of aluminum powders and paste; and Guidelines for handling Aluminum Fines generated during various aluminum fabricating operations. The movement of molten aluminium should be carried out using suitable and approved refractory lined containers. Recently cast products may still be hot, avoid touching metal in casting areas. Be careful to use only preheated or specially coated and rust free tools in contact with molten aluminium. Handling of molten metal: the use of protective clothing (flame retardant–EN certified for molten metal handling), gloves, and safety glasses or face shields to prevent skin and eye contact is required. Contact lenses should not be worn where industrial exposures to this material are likely. No synthetics fabrics even as undergarments. Safety showers must be available in areas handling molten metal for use in case of burns.

Conditions for safe storage, including any incompatibilities

Keep dry. Store away from incompatible materials. Suitable storage areas should be clearly marked. Store metal in cool, dry, well ventilated area. Ingots intended for remelting must be stored in dry area, carefully inspected and preheated before charging into molten metal.

Specific end use(s)

For detailed information, see section 15. Recommendations given in the exposure scenario for the uses are distributed and annexed as separate documents to this eSDS.

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Constituents	Type	Value	Form
Aluminium (7429-90-5)	TWA	10 mg/m3	Inhalable dust.
		4 mg/m3	Respirable dust.
Copper (7440-50-8)	STEL	2 mg/m3	Inhalable dusts and mists.

UK. EH40 Workplace Exposure Limits (WELs)

Constituents	Type	Value	Form
	TWA	0.2 mg/m3	Fume.
		1 mg/m3	Inhalable dusts and mists.
Manganese (7439-96-5)	TWA	0.5 mg/m3	
Silicon (7440-21-3)	TWA	10 mg/m3	Inhalable dust.
		4 mg/m3	Respirable dust.

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

DNEL Not available.

PNEC Not available.

Exposure controls

Appropriate engineering controls Special ventilation should be used to convey finely divided metallic dust generated by grinding, sawing etc., in order to eliminate explosion hazards. Maintain dust concentration in ventilation ducts below the lower explosive limit of 40 g/m3 (0.04 oz/ft3). Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of dust.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear dust-resistant safety goggles where there is danger of eye contact. In addition to safety glasses or goggles, a welding helmet with appropriate shaded shield is required during welding, burning, or brazing. A face shield is recommended, in addition to safety glasses or goggles, during sawing, grinding, or machining.

Skin protection

- Hand protection Wear suitable protective gloves to prevent cuts and abrasions. When material is heated, wear gloves to protect against thermal burns. Suitable gloves can be recommended by the glove supplier.

- Other Wear suitable protective clothing.

Respiratory protection Use an approved respirator designed for the hazard, where concentrations exceed exposure limits. The use of both primary and secondary protective equipment is necessary when handling molten metal. Refer to "Aluminum Association" guidelines. Seek advice from local supervisor.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Wash hands after handling. Routinely wash work clothing and protective equipment to remove contaminants. Handle in accordance with good industrial hygiene and safety practices. Follow up on any medical surveillance requirements.

Environmental exposure controls Contain spills and prevent releases and observe national regulations on emissions.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance Massive, solid metal.

Physical state Solid.

Form Solid forms such as: Ingots Billets Slabs

Colour Grey to silver.

Odour Odourless.

Odour threshold Not applicable.

pH Not applicable.

Melting point/freezing point 660 °C (1220 °F) Approximately.

Boiling point, initial boiling point, and boiling range 2450 °C (4442 °F) Approximately.

Flash point Not applicable.

Auto-ignition temperature Not applicable.

Flammability (solid, gas) Non flammable.

Flammability limit - lower (%) Not applicable.

Flammability limit - upper (%) Not applicable.

Oxidising properties	Not oxidizing.
Explosive properties	Not explosive.
Explosive limit	Not applicable.
Vapour pressure	0.0013 hPa (974°C / 1785.2°F)
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Relative density	2.7
Relative density temperature	20 °C (68 °F)
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	Not applicable.
Decomposition temperature	Not applicable.
Bulk density	Not available.
Viscosity	Not applicable.
Viscosity temperature	Not applicable.
VOC (Weight%)	Not applicable.
Percent volatile	Not applicable.
Other information	No relevant additional information available.

Section 10: Stability and reactivity

Reactivity	The product is non reactive under normal conditions of use, storage and transport.
Chemical stability	The product is stable under normal conditions of use, storage and transport.
Possibility of hazardous reactions	Hazardous polymerisation does not occur. In the form of particles (small chips, fine turnings, dusts), aluminum reacts with water and air humidity, strong basic solutions, strong acidic solutions, halogenated acids (eg.: hydrofluoric acid), producing flammable hydrogen gas.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Molten aluminium may explode in contact with water. In the form of particles, may explode when mixed with halogenated acids, halogenated solvents, bromates, iodates or ammonium nitrate. Aluminium particles in contact with copper, lead or iron oxides can react vigorously with release of heat if there is a source of ignition or intense heat.
Hazardous decomposition products	Welding, burning, sawing, brazing, grinding or machining operations may generate dusts and fumes of metal oxides. In the form of particles (small chips, fine turnings, dusts), aluminum reacts with water and air humidity, strong basic solutions, strong acidic solutions, halogenated acids (eg.: hydrofluoric acid), producing flammable hydrogen gas.

Section 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Ingestion	Ingestion may cause irritation and malaise.
Inhalation	Dust may irritate respiratory system.
Skin contact	Dust may irritate skin.
Eye contact	Dust may irritate the eyes.

Symptoms Irritation of eyes and mucous membranes. Irritation of nose and throat.

Information on toxicological effects

Acute toxicity Dust may irritate respiratory system. High concentrations of freshly formed fumes/dusts of metal oxides can produce symptoms of metal fume fever.

Constituents	Test results
Aluminium (7429-90-5)	Acute Inhalation LC50 Rat: > 888 mg/m3 4 Hours
	Acute Oral LD50 Rat: > 2000 mg/kg
Iron (7439-89-6)	Acute Inhalation LC50 Rat: 250 mg/m3 6 Hours (Carbonyl iron)
	Acute Oral LD50 Rat: 7500 mg/kg
Manganese (7439-96-5)	Acute Inhalation LC50 Rat: > 5.14 mg/l 4 Hours
	Acute Oral LD50 Rat: > 2000 mg/kg
Silicon (7440-21-3)	Acute Dermal LD50 Rabbit: > 5000 mg/kg (Silicon dioxide)

Constituents	Test results
	Acute Inhalation LC50 Rat: > 2.08 mg/l 4 Hours (Silicon amorphous, fumed)
	Acute Oral LD50 Rat: > 5000 mg/kg (Silicon dioxide)

Skin corrosion/irritation May cause irritation through mechanical abrasion.

Serious eye damage/eye irritation May cause irritation through mechanical abrasion.

Respiratory sensitisation Not classified.

Skin sensitisation Not a skin sensitiser.

Germ cell mutagenicity Test data conclusive but not sufficient for classification.

Carcinogenicity Test data conclusive but not sufficient for classification.

Reproductive toxicity Test data conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure Test data conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure Test data conclusive but not sufficient for classification.

Aspiration hazard Not classified.

Mixture versus substance information Not available.

Other information Aluminium fumes generated during welding or melting present low health risks. Welding or plasma arc cutting of aluminium alloys can generate ozone, nitric oxides and ultraviolet radiation. Ozone overexposure may result in mucous membrane irritation or pulmonary discomfort. UV radiation can cause skin erythema and welders flash.

Section 12: Ecological information

Toxicity

Constituents	Test results
Aluminium (7429-90-5)	EC50 Pseudokirchneriella subcapitata: 1.05 mg/l 72 Hours (Dissolved Al+)
	LC50 Pimephales promelas: > 218.64 mg/l 96 Hours (Aluminium chloride)
	LC50 Water flea (Ceriodaphnia): 3.69 mg/l 48 Hours (Aluminium chloride)
Manganese (7439-96-5)	EC50 Daphnia magna: > 1.6 mg/l 48 Hours
	EC50 Desmodesmus subspicatus: > 2.8 mg/l 72 Hours
	LC50 Oncorhynchus mykiss: > 3.6 mg/l 96 Hours
Silicon (7440-21-3)	EC50 Freshwater algae: > 100 mg/l 72 Hours
	LC50 Freshwater fish: > 100 mg/l 96 Hours
Copper (7440-50-8)	EC50 Daphnia magna: 33.8 µg/l 48 Hours Dissolved Cu+
	EC50 Pseudokirchneriella subcapitata: 35 µg/l 72 Hours (CuCl2)
	LC50 Pimephales promelas: 38.4 µg/l 96 Hours (CuSO4)

Persistence and degradability The product is not biodegradable.

Bioaccumulative potential The product is not bioaccumulating.

Mobility In general aluminium alloys are not mobile in the environment, unless they come into contact with an aqueous environment with a pH below 5.5 or above 8.5.

Environmental fate - Partition coefficient Not applicable.

Mobility in soil In general aluminium alloys are not mobile in the environment, unless they come into contact with an aqueous environment with a pH below 5.5 or above 8.5.

Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

Other adverse effects Aluminium alloys in massive forms present a limited hazard for the environment. Not expected to be harmful to aquatic organisms. However in case of accidental release of large amounts a hazardous effect cannot be excluded.

Section 13: Disposal considerations

Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Recover and recycle, if practical. Solid metal and alloys in the form of particles may be reactive. Its hazardous characteristics, including fire and explosion, should be determined prior to disposal.
Contaminated packaging	Dispose of in accordance with local regulations.
EU waste code	10 03 99
Disposal methods/information	Dispose in accordance with all applicable regulations.

Section 14: Transport information

ADR

The product is not covered by international regulation on the transport of dangerous goods.

RID

The product is not covered by international regulation on the transport of dangerous goods.

ADN

The product is not covered by international regulation on the transport of dangerous goods.

IATA

The product is not covered by international regulation on the transport of dangerous goods.

IMDG

The product is not covered by international regulation on the transport of dangerous goods.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable. However, this product is a solid. When transported in bulk, it is not covered under Appendix I of the IMSBC Code.

Section 15: Regulatory information

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

EU Regulations

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V

Not listed.

Directive 96/61/EC concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registery (EPER)

Copper (CAS 7440-50-8)

Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List

Not listed.

Other regulations	This product does not meet the criteria for classification according to Regulation (EC) 1272/2008 (CLP Regulation) and Directive 1999/45/EC and their amendments respectively. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.
National regulations	Follow national regulation for work with chemical agents.
Chemical safety assessment	For this substance a chemical safety assessment has been carried out.

Section 16: Other information

List of abbreviations	DNEL: Derived No-Effect Level. PNEC: Predicted No-Effect Concentration. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent and very Bioaccumulative. DSD: Directive 67/548/EEC. CLP: Regulation No. 1272/2008. N/A: Not applicable. LD50: Lethal Dose, 50%. LC50: Lethal Concentration, 50%. EC50: Effective concentration, 50%.
References	IUCLID Chemical safety report.

Information on evaluation method leading to the classification of mixture	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.
Full text of any statements or R-phrases and H-phrases under Sections 2 to 15	None.
Training information	Follow training instructions when handling this material.
Disclaimer	This Safety Data Sheet is specifically designed to comply with the requirements of the EU Regulation called REACH - Registration, Evaluation and Authorisation of Chemicals (EC No. 1907/2006 of the European Parliament and of the Council of 18 December 2006) and the corresponding country law, and may not comply with the requirements of any other regulations for safe product handling.
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Stairnosings, Flooring Adhesives & Accessories

SAFETY DATA SHEET – M2013/MSD

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY/UNDERTAKING

1.1. Product Description: PVC compound in insert form

1.2. Product Uses: Stairnosing & Flexible PVC products

1.3. Company
Morleys (2013) Ltd
Unit 20, Higher Walton Mill
Higher Walton
Preston
PR5 4DJ

1.4. Telephone No: 01772 626700
Fax 01772 627372
e-mail sales@morleys2013.co.uk
Website morleys2013.co.uk

2. HAZARDS IDENTIFICATION

This preparation contains no ingredients listed as hazardous to supply and all ingredients are bound up in the solid phase and therefore not freely available. Harmful effects are not likely to occur under normal conditions of use.
Incorrect processing, especially equipment overheat will lead to thermal decomposition. This will evolve toxic and corrosive gases and vapours.

3. COMPOSITION / INFORMATION ON INGREDIENTS

This PVC compound contains no ingredients listed as hazardous for supply.

4. FIRST AID MEASURES

4.1. Skin Contact

a. Inserts at room temperature

Under normal circumstances handling inserts presents no hazard, and gloves should not be required. Should any individual suffer skin irritation, impervious gloves should be provided (though these may well be made from PVC). If irritation persists medical attention should be obtained.

b. Melt

Use heat resistant gloves and avoid skin contact with molten PVC which will burn. Douse or immerse affected area in cold water. Does not force melt from skin. Obtain immediate medical attention.

c. Processing fumes

Ideally fumes should be locally extracted away from operators, but where skin contact occurs wash with plenty of soap and water. Do not use solvents. In case of irritation obtain medical attention.

d. Decomposition fumes

Exceeding correct processing conditions could lead to decomposition of PVC compound releasing hydrogen chloride gas. Shower, paying particular attention to eyes and hair. Soak clothing in a 1% sodium bicarbonate (baking soda) solution before laundering prior to reuse.

4.2. Eye Contact

a. Inserts at room temperature

If small particles of insert become lodged in the eye treat as for removing dust etc., from eyes. Eye protection should be worn. If insert is thrown into the eyes with force treat for bruising. If any irritation is apparent flush with water. If irritation persists obtain medical attention.

b. Melt

Use eye protection to prevent molten PVC being splashed into eyes. If contact occurs immediately immerse eyes in cold water to remove heat from melt. Unless molten PVC comes away from eyes without force do not attempt to pull it away. Obtain urgent medical attention. Even when PVC feels cool it will still retain heat within the melt. Continue with intermittent cold water immersion to keep solidified melt cool.

c. Processing fumes

Ideally fumes should be locally extracted away from personnel. At first signs of irritation remove affected person from contact and flush eyes with clean water holding eyelids apart. If irritation persists obtain medical attention.

d. Decomposition fumes

Exceeding correct processing conditions will lead to decomposition of PVC compound releasing hydrogen chloride gas. Flush eyes with plenty of clean water for at least fifteen minutes. Obtain medical attention. Treat for exposure to acid vapour.

4.3. Inhalation

a. Inserts at room temperatures

Not Applicable.

b. Melt

In the unlikely event of inhalation of hot melt, treat as for choking but expect severe burns to respiratory tract. Obtain immediate medical attention.

c. Processing fumes

Not Applicable.

4.4. Ingestion

a. Not Applicable

b. Melt

Ingestion of molten PVC will cause severe burns in the mouth and digestive tract. Give cold water to reduce temperature of burned areas and obtain immediate medical attention.

c. Decomposition fumes

Extreme heat conditions will lead to decomposition of PVC compound releasing hydrogen chloride gas. Give water to drink and obtain medical attention.

5. FIRE FIGHTING MEASURES

5.1. Evacuate all uninvolved people upwind of fire. In major fire consider similar evacuation of local area.

5.2. Suitable extinguishing materials are water, water mist, carbon dioxide foam, earth, sand and dry powder. Water mist will damp down hydrogen chloride fumes but will form weak hydrochloric acid. This should be neutralised with calcium carbonate (whiting). Beware of live electrical equipment when using water based extinguishers.

5.3. Unsuitable extinguishing materials – none.

5.4. For major fires and those in confined areas self contained breathing apparatus and acid resistant protective clothing should be used. Shower with plenty of water to remove acid fumes. Soak contaminated clothing in 1% sodium bicarbonate solution before re-laundering for reuse.

6. ACCIDENTAL RELEASE MEASURES

6.1. Sweep up or vacuum. Beware of hard particles of insert 'flying' when using brush. Eye protection should be worn.

7. HANDLING & STORAGE

7.1. Loose inserts present a hazard. Inserts caught on hot parts of processing machinery should be removed as soon as it is safe to do so, otherwise decomposition and release of acid fumes will occur.

7.2. Processing. Provide adequate ventilation. Where necessary extract vapours from hot materials away from operators.

7.3. Storage of loose insert. Store at room temperature. Avoid sources of heat and ignition. Store away from food, drink, animal feeds, strong acids and acetal resin.

7.4. Fire and explosion. PVC is not readily ignitable but will burn releasing toxic fumes. Avoid source of ignition. Usually it is more likely that fire will be initiated by ignition of packaging (paper/polythene bags, wooden pallets or cardboard boxes) rather than the insert itself.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Personal protection. Wear suitable overalls and protective clothing.
Refer to safe cutting procedures when using knives.

8.2. Occupation Exposure Limits on Decomposition Products

Fire or overheating of the compound will cause thermal decomposition, releasing toxic vapours.

Hydrogen Chloride: Long Term Exposure Limit-LTEL (8 hour reference period): 1ppm ($2mg.m^{-3}$)
Short Term Exposure Limit-STEL (15 min reference period): 5ppm ($8mg.m^{-3}$)

Carbon monoxide: Long Term Exposure Limit-LTEL (8 hour reference period): 30ppm ($35mg.m^{-3}$)
Short Term Exposure Limit-STEL (15 min reference period): 200ppm ($232mg.m^{-3}$)

9. PHYSICAL & CHEMICAL PROPERTIES

9.1. Form. Inserts, usually flat and in rolls, 38mm or 50mm wide by either 2mm or 4mm high.

9.2. Odour. On some grades a slight characteristic odour may be noticed, especially on first using material.

9.3. Melting point. Softens at about 130^0C.

9.4. Decomposition temperature. Decomposition depends on time and temperature but will initiate at about 130^0C where it will take several hours or days. At 200^0C it will increase rapidly, taking only a few minutes. Decomposition releases hydrogen chloride fumes.

9.5. Relative Density. Bulk density as inserts, extruded 1.12 to 2.0 depending on grade. Foam moulding or extrusion 0.75 TO 1.2. See physical data sheets for further information.

9.6. Solubility. a) Water. Virtually insoluble, some plasticiser extraction may take place over prolonged period
b) Insert will swell in petrol and polar solvents. Plasticiser and stabiliser will be soluble.

10. STABILITY & REACTIVITY

10.1. Stability.
If stored and used in accordance with standard practice this product is unlikely to cause harmful effects.

10.2. Conditions to avoid.
High temperatures. Will melt to a coagulated mass above 100^0C, decompose at temperatures over 130^0C. Also avoid sources of ignition.

AVOID STORAGE OR CONTACT WITH ACETAL RESIN

10.3. Hazardous decomposition products.
Thermal decomposition will evolve toxic vapours of hydrogen chloride and carbon monoxide. Other organic decomposition products and metal oxides will also be evolved.

10.4. Reactivity.
PVC inserts are relatively inert. However, avoid contact with strong oxidising agents, concentrated acids at 60^0C and above and organic solvents.

AVOID CONTACT WITH ACETAL RESIN

11. TOXICOLOGICAL INFORMATION

11. None of the ingredients are classified as hazardous to supply.

12. ECOLOGICAL INFORMATION

12.1. Break Down.
In fully gelled form PVC compound, either as inserts supplied or finished articles, is considered ecologically benign. PVC compound is not easily broken down by either micro-organisms or weathering.

12.2 Water Pollution.
Classified as WGK = 0 (self classification) (Wassergerahrdungsklasse in Germany). Not water endangering.

13. DISPOSAL CONSIDERATIONS

13.1 Inserts and contaminated packaging should be disposed of in accordance with national and local regulations. Consult local authorities for advice. Incinerators should be fitted with acid scrubbing and run at a sufficient temperature to avoid evolution of dioxins. Recycle if possible.

14. TRANSPORT INFORMATION

14.1 Not classified as dangerous goods under transport regulations.

14.2 Extra care should be taken when moving the insert from which the shrink / stretch wrap, strapping has been removed.

15. REGULATORY INFORMATION

15.1 The PVC compound, used in the making of the insert, has been classified under the chemical (hazard, information and packaging) regulations (CHIP 2).

15.2 The PVC compound should not normally present any hazard to humans by inhalation, ingestion or skin contact in the form in which it is supplied. It is exempt from hazard labelling under CHIP 2 Regulation 9 and Guidance Regulation Clause 168.

16. OTHER INFORMATION

16.1 Training
Operators should be trained in the correct procedure for fitting.

16.2 Recommended Uses and Restrictions.
Unless otherwise stated on the relevant technical data sheet the PVC insert is not intended for use in toys, contact with foodstuffs or medical applications.

16.3 M2013/MSD Issue 2

Date: January 2017

The information and recommendations in this safety data sheet are to the best of our knowledge true and accurate at the time of writing.

morleys

Stairnosings, Flooring Adhesives & Accessories

PRODUCT INFORMATION SHEET

Foam Acrylic Tape RED48/36

General Description
RED48/36 is a grey foamed acrylic adhesive with a red PE release liner.

Applications
Ideal for bonding engineering plastics and sheet plastics and a wide range of metals particularly stainless steel and aluminium. Very good for powder coated painted surfaces and automotive paints.

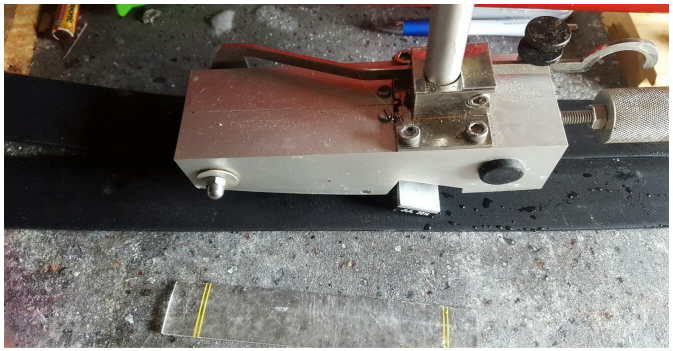
Technical Details

Carrier	Acrylic foam
Adhesive	Acrylic
Colour	Grey
Thickness	0.4mm
Density of Foam	850kg/m³
Release Liner	Red PE
180° Peel Adhesion ASTM D-3330	3500g/cm
Tensile Adhesion (T-Block Test) ASTM D-897	11000g/cm
Dynamic Shear ASTM D-1002	8000g/cm
Temperature Resistance Short Term	160°C
Temperature Resistance Long Term	100°C
Low Temperature Resistance	-40°C
UV Resistance	Good

Storage
Store in cool conditions in original packaging away from direct sunlight or heat sources

Increasing Safety by Reducing Risk

BS7976 -2 Pendulum Slip Test



Customer: Morleys Ltd

Test Number: FS10174

Operator: Glenn MacLaughlan

Date of Test: 11th September 2015

On Site: Sample sent to office

Pendulum Calibration Number: C2674

Pendulum serial number: SK1595

Slider Type :Fours 96

Contaminate Description: Water

Surface: Stair Tread - Premium

Calibration Checks Done:

lapping accepted 65+/-3	64	63	63	63	**62**
Glass accepted:7+/-3	9	8	8	8	**8**

Theory

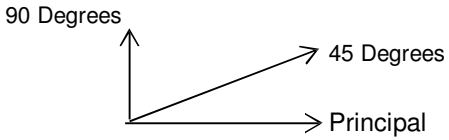
A site assessment is an important component in determining the slip risk of any given floor. The HSE's pedestrian slip potential model highlights important environmental factors in a slip. Contaminating substances, frequency and methods of cleaning, types of footwear and likely pedestrian behaviour all affect the potential for a slip incident and are given due consideration.

Research carried out by the Health and Safety Laboratory, in conjunction with the UK Slip Resistance Group (UKSRG), has shown that it is possible to assess the characteristics of floor surface materials needed for satisfactory slip resistance. The Health and Safety Laboratory has developed a "reliable and robust" test method that forms the basis of Floor Safes assessment procedure.

The pendulum skid test forms the basis of the coefficient of dynamic friction measurement of a floor. A calibrated 'foot' swings from a horizontal point of release, strikes the flooring surface for a known distance, then reads the "pendulum test value" on its over swing. The rubber slider that contacts the floor is constructed of '4S' rubber (Standard Simulated Shoe Sole) and is designed to replicate the most common slipping motion experienced by pedestrians wearing shoes. A softer, more malleable, rubber (TRL rubber) may be used to simulate a barefoot or casual shoe slip. Pendulum testing is one of the few methods that models the formation of a hydrodynamic squeeze film between the floor and shoe sole, a major factor in a wet slip.

Test surfaces are subject to eight measurements of the PTV with the first three being discounted from calculations of the mean.

A prepared standard rubber slider attached to a weighted 'shoe' is allowed to swing from a horizontal point of release. The slider is mounted on a spring loaded bracket and makes contact with the floor for a known distance. The height to which the shoe travels after contacting the floor gives a reading of the Pendulum Test Value (PTV, formally known as SRV Slip Resistance Value). The dynamic coefficient of friction of a test surface has a direct and measurable effect on the PTV reading obtained.



HSE Guidelines for pedestrian slip

0 – 24 High Risk for Slip potential

25 – 35 Moderate Risk for Slip Potential

36+ Low Risk for slip potential.

Test Swings As Found D	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**Result**	**Risk level of slip potential**
Dry Principal	72	70	70	70	68	68	68	68	**68**	**Low**
Dry 45 degree	72	71	70	68	67	67	67	67	**67**	**Low**
Dry 90 Degrees	72	70	70	70	69	69	69	69	**69**	**Low**
								Result	**68 ptv**	**Low Risk**
Wet principal	59	58	57	56	56	56	56	56	**56**	**Low**
Wet 45 degrees	58	56	55	55	55	55	55	55	**55**	**Low**
Wet 90 Degrees	58	57	56	56	56	56	56	56	**56**	**Low**
								Result	**56 ptv**	**Low Risk**

Glenn MacLaughlan is the Director of Floor Safe Ltd. The company was started in 2007 and over the last 7 years has provided pendulum slip testing for many major UK businesses. Clients include: NHS - M.O.D - Nandos - The O2 - London Olympics - David Lloyd Leisure - British Gas and more.

The Pendulum Slip Value Readings were correct at the time of test. However this does not indicate the readings will remain the same this can be due to the installation, daily maintenance and the volume of foot falls.

If a sample has been sent for lab testing we highly recommend a re-test in situ.

Anti slip stone treatments applied by Floor Safe will rapidly diminish if not maintained as directed by Floor Safe Ltd on a daily basis.

Reported results in no way imply that the flooring under test is approved or endorsed by Floor Safe Ltd

Floor Safe Ltd do not give or assume warranty or condition, express or implied, statutory or otherwise, as to condition, quality, performance, merchantability or fitness for the purpose of the test subject and all such warranties and conditions are hereby excluded save to the extent that such exclusion is absolutely prohibited by law. Floor Safe Ltd shall not be liable for any subsequent loss or damage incurred by the client as a result of information contained within this report. **Results given herein refer only to areas or sample tested by Floor Safe Ltd**

Calibration Certificate

Manufacturer's Machine ID Number	**SK1595**
Item Tested	**TRRL Type Skid Tester**
Calibration Certificate Number	**C2674**
Customer Name	**Floor Safe Ltd**
Date Calibrated	**28/10/2014**
Expiry Date	**27/10/2015**

We certify that this machine has been calibrated in accordance with BS EN 1097-8 : 2009,BS EN 13036:part 4:2003 and BS7976.Part 3:2002

The procedures used are contained in the company's Quality Manual, which has been accredited under ISO 9001:2000

Findings and adjustments are recorded in the Customer Report Form supplied with this Certificate.

The instrument should be re-calibrated within one year of the calibration date. (RS EN 1097-8:2009 Clause D.1.1 & BS7976 –3 2002 Clause 4 note 2)

Authorised by

WESSEX TEST EQUIPMENT LTD

Issue 3.0 01/10/05 1/1

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