Liquid Roofing Systems Ltd
Prees Green
Shropshire
SY13 2BN
Tel: 01948 841 877
Fax: 01948 841 854
Web: lrs-systems.co.uk

1. Identification of the Substance/Preparation and of the Company

Product	RapidRoof WaterProof
Company	Liquid Roofing Systems Ltd.
Address	Prees Green Whitchurch Shropshire SY13 2BN
Telephone	01948 841 877
Fax	01948 841 854
Website	lrs-systems.co.uk

2. Hazards Identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008	
Flammable Liquid 2	H225 Highly flammable liquid and vapour.
Skin Irritant 2	H315 Causes skin irritation.
Eye Irritant 2	H319 Causes serious eye irritation.
Skin Sensitisation 1	H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC	
Xi; Irritant R37 / 38	Irritating to respiratory system and skin.
Xi; Sensitising R43	May cause sensitisation by skin contact.
F;	Highly Flammable.
R11	Highly Flammable.
Information concerning particular hazards for human and environment	The product has to be labelled due to the calculation procedure of the “General Classification guideline for preparations of the EU” in the latest valid version.
Classification System	The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2 Label elements	
Labelling according to Regulation (EC) No 1272/2008	This product is classified and labelled according to the CLP regulation.
Hazard pictograms	 GHS02 GHS07
Signal word	Danger.
Hazard-determining components of labelling	N-butyl acrylate.
	Methyl methacrylate.
Hazard Statements	H225 Highly flammable liquid and vapour.
	H315 Causes skin irritation.
	H319 Causes serious eye irritation.

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	H317 May cause an allergic skin reaction.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. No Smoking.
	P261 Avoid breathing dust/fume gas/mist/vapours/spray.
	P280 Wear protective gloves/protective clothing/eye protection/face protection.
	P305 + P351 + P338 IF IN EYES: Rinse cautiously for several minutes with water. Remove any contact lenses if present and easy to do. Continue rinsing.
	P403 + P235 Store in a well-ventilated place. Keep cool.
	P501 Dispose of contents / container in accordance with local / regional / national / international regulations.

2.3 Other hazards. Results of PBT and vPvB assessment	
PBT	Not applicable.
vPvB	Not applicable.

3. Composition/Information of Ingredients

Hazardous Ingredients	Methacrylate Resin Liquid

N-butyl acrylate	CAS: 141-32-2 EINECS: 205-480-7 Reg.nr.: 01-2119453155-43-xxxx	Xi R36/37/38; Xi R43 R10	25-50%	Flam. Liq. 3, H226; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335
Methyl methacrylate	CAS: 80-62-6 EINECS: 201-297-1 Reg.nr.: 01-2119452498-28	Xi R37/38; Xi R43; F R11	10-25%	Flam. Liq. 2, H225, Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335
1 , 1'-(p-tolylimino)dipropan-2-ol	CAS: 38668-48-3 EINECS: 254-075-1	T R25 R52/53	0.5-2.5%	Acute Tox. 3, H301; Aquatic Chronic 3, H412
Additional Information: For the wording of the listed risk phrases refer to section 16.				

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 and to be sure call for a doctor.
After skin contact	Immediately wash with water and soap and rinse thoroughly.

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After eye contact	Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing	Drink plenty of water and provide fresh air. Call for 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.

5. Firefighting Measures

5.1 Extinguishing media	
Suitable extinguishing agents	Foam
	Sand
	CO2, extinguishing powder or water spray. Fight larger fires with alcohol resistant foam.
For safety reasons unsuitable extinguishing agents	Water with full jet

5.2	
Special hazards arising from the substance or mixture	Exothermic polymerisation
In case of fire the following can be released	Hydrocarbons
	Carbon monoxide and carbon dioxide

5.3 Advice for firefighters	
Protective equipment	Wear self-contained respiratory protective device.
Additional information	Cool endangered receptacles with water spray.

6. Accidental Release Measures

6.1	
Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation.
	Wear protective clothing.
	Keep away from ignition sources.
	Use respiratory protective device against the effects of fumes / dust / aerosol.
	Wear protective equipment.
	Keep unprotected people away.

6.2	
Environmental precautions	Do not allow to enter sewers/surface or ground water.

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6.3	
Methods and material for containment and cleaning up	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders,).
	Ensure adequate ventilation.
	Do not flush with water or aqueous cleansing agents

6.4	
Reference to other sections	See section 7 for information on safe handling.
	See section 8 for information on personal protection equipment.
	See section 13 for disposal information.

7. Handling and Storage

7.1	
Precautions for safe handling	Ensure good ventilation / exhaustion at the workplace.
Information about fire and explosion protection	Keep ignition sources away – Do not smoke.
	Protect against electrostatic charges.
	Fumes can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities	
Storage	
Requirements to be met by storerooms and receptacles	Store only in the original receptacle.
	Store in cool, dry conditions in well-sealed receptacles.
	Do not allow to enter sewers/surface or ground water.
Information about storage in one common storage facility	Not required.
Further information about storage conditions	Store receptacle in a well ventilated area.
	Protect from heat and direct sunlight.
Maximum storage temperature	25°C
Specific end use (BetrSichV)	Highly flammable.

7.3	
Specific end use(s)	No further relevant information available.

8. Exposure Controls/Personal Protection

Additional information about design of technical facilities	No further data; see item 7.

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8.1 Control parameters		
Ingredients with limit values that require monitoring at the workplace.		
141-32-2n-Butyl acrylate	AGW	Long-term value: 11 mg/m³, 2 ml/m³ 2(I);DFG, EU, Y
80-62-6 Methyl methacrylate	AGW	Long-term value: 210 mg/m³, 50 ml/m³ 2(I);DFG, EU, Y
109-16-0 Triethylene glycol dimethacrylate	MAK	vgl.Abschn.IV
Additional Information: The lists valid during the making were used as basis.		

8.2 Exposure Control	
Personal protective equipment	
General protective and hygienic measures	Keep away from foodstuffs, beverage and feed.
	Immediately remove all soiled and contaminated clothing.
	Wash hands before breaks and at the end of work.
	Avoid contact with the eyes and skin.
Respiratory protection	Use the indicated respiratory protection if workplace exposure limits are exceeded.
Recommended filter device for short term use	Filter A
Protection of hands **(Protective gloves)**	The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation (EN 374)
Material of gloves	Butyl rubber, BR.
Penetration time of glove material	The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. For the mixture mentioned below the penetration time has to be at least 60 minutes (Permeation according to EN 374 Part 3: Level 3).
Eye protection	Tightly sealed goggles.
Body protection	Protective work clothing.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties	
General information	
Appearance	
Form	Fluid
Colour	Dark Grey
Odour	Characteristic
Odour threshold	Not determined
pH-value	Not determined
Change in condition	
Melting point/melting range	-48°C
Boiling point/boiling range	100°C
Flash point	10°C

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Flammability (solid, gaseous)	Not applicable
Ignition temperature	275°C
Decomposition temperature	Not determined
Self-igniting	Product is not self-igniting
Danger of explosion	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Explosion limits	
Lower	1.2 Vol %
Upper	12.5 Vol %
Vapour pressure at 20°C	38.7 hPa
Density	Not determined
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water	Not miscible
Partition coefficient (n-octanol/water)	Not determined.
Viscosity	
Dynamic at 20 °C	1200 mPas
Kinematic	Not determined
Solvent content	
Organic solvents	0.0 %
Solids content	50.0 %

9.2 Other information	No further relevant information available.

10. Stability and Reactivity

10.1 Reactivity	No further relevant information available.

10.2 Chemical stability	
Thermal decomposition / conditions to be avoided	Keep away from heat and direct sunlight.

10.3 Possibility of hazardous reactions	Exothermic polymerization.

10.4 Conditions to avoid	No further relevant information available.

10.4 Conditions to avoid	No further relevant information available.

10.5 Incompatible materials	Reacts with peroxides and other radical forming substances.

10.6 Hazardous decomposition products	Hydrocarbons, Carbon monoxide and carbon dioxide
Additional information	Do not allow to enter sewers/ surface or ground water.

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11. Toxicological Information

11.1 Information on toxicological effects	
Acute toxicity	
Primary irritant effect	
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)	
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

12. Ecological Information

12.1 Toxicity	
Aquatic toxicity	No further relevant information available.

12.2 Persistence and degradability	No further relevant information available.

12.3 Bio accumulative potential	No further relevant information available.

12.4 Mobility in soil	No further relevant information available.
Additional ecological information	
General notes	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	Not applicable.
vPvB	Not applicable.

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12.6 Other adverse effects	No further relevant information available.

13. Disposal Considerations

13.1 Waste treatment 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.
European waste catalogue	
07 02 08*	Other still bottoms and reaction residues.
15 01 10*	Metallic packaging.
Uncleaned packaging	
Recommendation	Packaging may be reused or recycled after cleaning. Packaging that may not be cleansed are to be disposed of in the same manner as the product. Disposal must be made according to official regulations.
Recommended cleansing agents	Acetone, ethylacetate.

14. Transport Information

14.1 UN-Number	
ADR, IMDG, IATA	UN1866

14.2 UN proper shipping name	
ADR	1866 FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILISED, BUTYL ACRYLATES, stabilised).
IMDG, IATA	FLAMMABLE LIQUID, NOS (Methyl Methacrylate monomer, stabilised, butyl acrylate, STABILISED).

14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class	3 Flammable Liquids.
Label	3

14.4 Packing group	
ADR, IMDG, IATA	III

14.5 Environmental hazards

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Marine pollutant	No

14.6 Special precautions for user	Warning: Flammable liquids.
Danger code (Kemler)	33
EMS Number	F-E,S-E

14.7 Transport in bulk according to Ann of Marpol and the IBC Code	Not applicable.
Transport/Additional information	
ADR	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	D/E
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation"	UN 1866, Flammable liquid SUBSTANCE, N.O.S. (Methyl methacrylate, MONOMER, STABILISED, BUTYL ACRYLATES, stabilised), 3, III

15. Regulatory Information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**	
Directive 2012/18 / EU	
Named dangerous substances	ANNEX I none of the ingredients listed.
National regulations	
Waterhazard class	Water hazard class 1 (Self-assessment): slightly hazardous for water.

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Other regulations, limitations and prohibitive regulations	
VOC content (EU)	0.00%
GISCODE	RMA 10

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

16. Other Information

Relevant phrases	
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.

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H301	Toxic if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
R10	Flammable.
R11	Highly flammable.
R25	Toxic if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37/38	Irritating to respiratory system and skin.
R43	May cause sensitisation by skin contact.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Department issuing MSDS	Environmental Department
Abbreviations and acronyms	Flam. Liq. 2: Flammable liquids, Hazard Category 2
	Flam. Liq. 3: Flammable liquids, Hazard Category 3
	Acute Tox. 3: Acute toxicity, Hazard Category 3
	Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
	Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
	Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
	STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3 Aquatic
	Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3
*** Data compared to the previous version altered.**	

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Liquid Rubber Ltd shall not be held liable for any damage resulting from handling or from contact with the above product.