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1. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: SOLVENT CEMENT

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

Adhesive

1.3 Details of the supplier of the safety data sheet.

Company: Kalsi Plastics UK Ltd
Address: Kalsi House 5 Tomey Road

City: Birmingham
Telephone: 0121 693 0373
Fax: 0121 624 2662
E-mail: sales@kalsiplastics.co.uk

1.4 Emergency telephone number: 0121 693 0373 (Only available during office hours)

2. HAZARDS IDENTIFICATION.

2.1 Classification of the mixture.

In accordance with Directive 1999/45/EC:

Highly flammable.

Irritating to eyes.

Repeated exposure may cause skin dryness or cracking.

Vapours may cause drowsiness and dizziness.

In accordance with Regulation (EU) No 1272/2008:

Eye Irrit. 2 : Causes serious eye irritation. Flam. Liq. 2 : Highly flammable liquid and vapour. STOT SE 3 : May cause drowsiness or dizziness.

2.2 Label elements.

Labelling in accordance with Directive 1999/45/EC:

Symbols:





Irritant

Highly flammable

R Phrases:

R11 Highly flammable. R36 Irritating to eyes.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

S Phrases:

S9 Keep container in a well-ventilated place.S16 Keep away from sources of ignition - No smoking.

S24 Avoid contact with skin.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S33 Take precautionary measures against static discharges.

To clean the floor and all objects contaminated by this material, use solvent cleaner.

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S43 In case of fire: Use an extinguisher powder or CO2. In case of more serious fires, use alcohol-

resistant foam and water spray. Do not use a direct stream of water to extinguish.

S51 Use only in well-ventilated areas.

S60 This material and its container must be disposed of as hazardous waste.

Labelling in accordance with Regulation (EU) No 1272/2008:

Pictograms:





Signal Word:

Danger

H statements:

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

P statements:

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P243 Take precautionary measures against static discharge.

P271 Use only outdoors or in a well-ventilated area.

P501 Dispose of contents/container though an authorized manager.

P370+P378 In case of fire: Use an extinguisher powder or CO2. In case of more serious fires, use alcohol-

resistant foam and water spray. Do not use a direct stream of water to extinguish.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin

with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

EUH statements:

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains:

acetone,propan-2-one,propanone butanone,ethyl methyl ketone ethyl acetate

2.3 Other hazards.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

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3. COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Mixtures.

Substances presenting a health or environmental hazard:

Identifiers	Name	Concentrate	(*)Classificatio n Regulation (EC) No 1272/2008	(*)Classificatio n Directive 67/548/CEE
Index No:606-001-00-8 CAS NO:67-64-1 N. CE:200-662-2 Registration No:01- 2119471330-49-0016	(**) acetone,propan-2-one,propanone	20 - 50 %	Eye Irrit. 2, H319 - Flam. Liq. 2, H225 - STOT SE 3, H336	F Xi R11 R36 R66 R67
Index No:606-002-00-3 CAS NO:78-93-3 N. CE:201-159-0 Registration No:01- 2119457290-43-0002	(**) butanone,ethyl methyl ketone	20 - 50 %	Eye Irrit. 2, H319 - Flam. Liq. 2, H225 - STOT SE 3, H336	F Xi R11 R36 R66 R67
Index No:607-022-00-5 CAS NO:141-78-6 N. CE:205-500-4 Registration No:N/D	(**) ethyl acetate	10 - 15 %	Eye Irrit. 2, H319 - Flam. Liq. 2, H225 - STOT SE 3, H336	F Xi R11 R36 R66 R67

^(*) The complete text of the R and H phrases is given in section 16 of this Safety Data Sheet.

4. FIRST AID MEASURES.

4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

<u>Inhalation</u>

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

Eye contact

If wearing contact lenses, remove them. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. **NEVER** use solvents or thinners.

Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. **NEVER** induce vomiting.

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

Irritant Product, repeated or prolonged contact with skin or mucous membranes can cause redness, blisters or dermatitis, inhalation of spray mist or particles in suspension may cause irritation of the respiratory tract, some symptoms may not be immediate. Can cause allergic reactions.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

^(**) Substance with a Community workplace exposure limit (see section 8.1).

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5. FIREFIGHTING MEASURES.

The product is Highly inflammable, it can cause or considerably worsen a fire, the necessary prevention measures should be taken and risks avoided. In case of fire, the following measures are recommended:

5.1 Extinguishing media.

Recommended extinguishing methods.

Extinguisher powder or CO_2 . In case of more serious fires, also alcohol-resistant foam and water spray. Do not use a direct stream of water to extinguish.

5.2 Special hazards arising from the mixture.

Special risks.

Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

6. ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

Eliminate possible ignition points and ventilate the area. Avoid breathing fumes. For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.

Pick up the spill with non-combustible absorbent materials (soil, sand, vermiculite, diatomite, etc.). Pour the product and the absorbent in an appropriate container. The contaminated area should be immediately cleaned with an appropriate de-contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

7. HANDLING AND STORAGE.

7.1 Precautions for safe handling.

The fumes are heavier than air and can spread across the ground. They can form explosive mixtures with air. Prevent the creation of flammable or explosive fume concentrations in the air; prevent fume concentrations above work exposure limits. The product must only be used in areas where all unprotected flames and other ignition points have been eliminated. Electrical equipment has to be protected according to applicable standards.

The product can be electrostatically charged: always use earth grounds when transferring the product. Operators must use anti-static footwear and clothing, and floors must be conductors.

Keep the container tightly closed and isolated from heat sources, sparks, and fire. Do not use tools that can cause sparks. For personal protection, see section 8. Never use pressure to empty the containers. They are not pressure-resistant containers.

In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Store the containers between 5 and 35° C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

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7.3 Specific end use(s).

Adhesive

8. EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Work exposure limit for:

	VLA-	ED *	VLA-EC *		
Name	ppm mg/m³		ppm	mg/m³	
acetone,propan-2-one,propanone	500	1210			
butanone,ethyl methyl ketone	200	600	300	900	
ethyl acetate	400	1460			

^{*} According to the list of Limit Environmental Professional Exposure Values adopted by the National Institute for Safety and Hygiene at Work for the year 2010.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Breathing protection:

Suitable breathing mask when there is inadequate ventilation.

Combination filter: ABEKP

This recommendation should be matched to local conditions.



Hand protection:

PPE: Protective gloves.

For shorttime contact (1-5 minutes) protective gloves made from special nitrile rubber are recommended according to EN374. Material thickness > 0,2 mm

In the case of longer contact protective gloves made from butyl rubber are recommended according to EN 374. material hickness > 0.7 mm Perforation time > 10 minutes

In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

<u>Maintenance</u>: Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives. <u>Observations</u>: Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.



Protective creams can help to protect exposed areas of the skin. These creams must **NEVER** be applied once exposure has occurred.

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Eve protection:

PPE: Face shield.

Characteristics: «CE» marking, category II. Face and eye protector against

splashing liquid.

CEN standards: EN 165, EN 166, EN 167, EN 168



<u>Maintenance</u>: Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions. Make sure that mobile parts move smoothly. <u>Observations</u>: Face shields should offer a field of vision with a dimension in the central line of, at least, 150 mm vertically once attached to the frame.

Skin protection:

PPE: Protective clothing.

Characteristics: «CE» marking, category II. Protective clothing should not be

too tight or loose in order not to obstruct the user's movements.

CEN standards: EN 340

<u>Maintenance</u>: In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.

<u>Observations:</u> The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.

PPE: Work footwear.

<u>Characteristics:</u> «CE» marking, category II. <u>CEN standards:</u> EN ISO 13287, EN 20347

<u>Maintenance</u>: This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.

<u>Observations:</u> Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident

9. PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Appearance: Thixotropic Odour: Characteristic Boiling Point: 67 °C Flash point: -10 °C Lower Explosive Limit: 1,1 Upper Explosive Limit: 12% Vapour pressure: 150 mHg Relative density:0.87 gr/cm³ Viscosity: Aprox. 12000 mPa.s

N.A./N.A.= Not Available/Not Applicable due to the nature of the product

9.2. Other information.VOC content (p/p): 79,89 %
VOC content: **695,043** g/l

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10. STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Stable under the recommended handling and storage conditions (see section 7).

10.3 Possibility of hazardous reactions.

The product does not present possibility of hazardous reactions.

10.4 Conditions to avoid.

Avoid temperatures near or above the flash point. Do not heat closed containers.

Avoid direct sunlight and heat, as these may cause a risk of fire.

10.5 Incompatible materials.

Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

10.6 Hazardous decomposition products.

In case of fire, dangerous decomposition products can be generated, such as carbon monoxide and dioxide and nitrogen fumes and oxides.

11. TOXICOLOGICAL INFORMATION.

IRRITANT PREPARATION. Splatters in the eyes can cause irritation.

11.1 Information on toxicological effects.

There are no tested data available on the product.

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Splatters in the eyes can cause irritation and irreversible damage.

Toxicological information about the substances present in the composition.

Name		Acute toxicity			
		Туре	Test	Kind	Value
acetone,propan-2-one,propanone		Oral	LD50	Rata	5800 mg/kg bw
		Dermal	DL50	Conejo	20000 mg/l
CAS NO: 67-64-1	EC NO: 200-662-2	Inhalation	CL 50	Rata	76 mg/l (4h)
butanone,ethyl methyl ketone		Oral	LD50	Rata	2740 mg/kg bw
		Dermal	LD50	Conejo	6480 mg/kg bw
CAS NO: 78-93-3	EC NO: 201-159-0	Inhalation			
athy dispatch		Oral	LD50	Rata	5620 mg/kg
ethyl acetate		Dermal	LD50	Conejo	> 18000 mg/kg bw
CAS NO: 141-78-6	EC NO: 205-500-4	Inhalation			

12. ECOLOGICAL INFORMATION.

12.1 Toxicity.

Name	Ecotoxicity				
Name	Туре	Test	Kind	Value	
	Fish	LC50	Pez	8300 mg/l (96 h)	
acetone,propan-2-one,propanone	Aquatic invertebrates	EC50	Crustáceo	18500 mg/l (48 h)	

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N. CAS: 67-64-1	N. CE: 200-662-2	Aquatic plants	EC50	Alga	7200 mg/l (96 h)
		Fish	LC50	Pez	3220 mg/l (96 h)
butanone,ethyl methyl ketone		Aquatic invertebrates	EC50	Crustáceo	5090 mg/l (48 h)
N. CAS: 78-93-3	N. CE: 201-159-0	Aquatic plants			
		Fish	LC50	Pez	328 mg/l (96 h)
ethyl acetate		Aquatic invertebrates	LC50	Crustáceo	679 mg/l (48 H)
N. CAS: 141-78-6	N. CE: 205-500-4	Aquatic plants	EC50	Alga	2500 mg/l (96 h)

12.2 Persistence and degradability.

No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potencial.

Information about the bioaccumulation of the substances present.

Name			Bioaccumulation			
		Log Pow	BCF	NOECs	Level	
butanone,ethyl methyl l	ketone	0,29			Very low	
N. CAS: 78-93-3	N. CE: 201-159-0	0,29			very low	
ethyl acetate		0.72			Vonclous	
N. CAS: 141-78-6	N. CE: 205-500-4	0,73			Very low	

12.4 Mobility in soil.

No information is available about the mobility in soil.

The product must not be allowed to go into sewers or waterways.

Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

13. DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

Follow the provisions of Directive 91/689/EEC regarding waste management.

14. TRANSPORT INFORMATION.

Transport following ADR rules for road transport, RID rules for railway, ADN for inner waterways, IMDG for sea, and ICAO/IATA for air transport.

Land: Transport by road: ADR, Transport by rail: RID.

Transport documentation: Consignment note and written instructions

<u>Sea</u>: Transport by ship: IMDG. Transport documentation: Bill of lading <u>Air</u>: Transport by plane: ICAO/IATA. Transport document: Airway bill.

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14.1 UN number. UN No: UN1133

14.2 UN proper shipping name.

Description: UN 1133 ADHESIVES, 3, PG III, (D/E)

14.3 Transport hazard class(es).

Class(es): 3

14.4 Packing group.

Packing group: III

14.5 Environmental hazards.

Marine pollutant: No

14.6 Special precautions for user.

Labels: 3



Hazard number: 30

Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): F-E,S-D

Proceed in accordance with point 6.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.

The product is not transported in bulk.

15. REGULATORY INFORMATION.

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

The product is not affected by the Regulation (EC) No 2037/2000 of the european parliament and of the council, of 29 June 2000 on substances that deplete the ozone layer.

See annex I of the Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances and the Regulation (EC) No 689/2008 of the european parliament and of the council of 17 June 2008 concerning the export and import of dangerous chemicals.

15.2 Chemical safety assessment.

There has been no evaluation a chemical safety assessment of the product.

16. OTHER INFORMATION.

Complete text of the R phrases that appear in section 3:

R11 Highly flammable. R36 Irritating to eyes.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

Complete text of the H phrases that appear in section 3:

H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

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Sections changed compared with the previous version:

16

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.