



SAFETY DATA SHEET

KaVo. Dental Excellence.

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

Product identifier

Trade name or designation of the mixture KaVo Kleber Silikon ELASTOSIL E 41

REACH Registration Number -

SDS number 0.359.2076

Date of first issue 29-August-2012

Version number 1.0

Revision date 29-August-2012

Supersedes date

Product use professional use

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

Identified uses Not available.

Uses advised against None known.

Details of the supplier of the safety data sheet

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Section 2: Hazards identification

Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

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

Classification F;R11, Repr. Cat. 3;R63, Xn;R48/20, Xi;R36/38, R67

The full text for all R-phrases is displayed in section 16.

Hazard summary

Physical hazards Highly flammable.

Health hazards Irritating to eyes and skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child. Vapours may cause drowsiness and dizziness. Occupational exposure to the substance or mixture may cause adverse health effects.

Environmental hazards Not classified for hazards to the environment.

Specific hazards Highly flammable. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Irritating to mouth, throat, and stomach. Irritating to eyes and skin. Possible risk of harm to the unborn child. Danger of serious damage to health by prolonged exposure. Do not breathe dust/fume/gas/mist/vapors/spray.

Main symptoms Irritating to eyes and skin. Irritating to mouth, throat, and stomach.

Label elements

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

Contains: Toluene



Harmful



Highly flammable

R-phrases

R11 Highly flammable.
 R36/38 Irritating to eyes and skin.
 R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 R63 Possible risk of harm to the unborn child.
 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.
 S23 Do not breathe gas/fumes/vapour/spray.
 S24/25 Avoid contact with skin and eyes.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S36/37 Wear suitable protective clothing and gloves.
 S60 This material and its container must be disposed of as hazardous waste.

Supplemental label information Not applicable.

Other hazards Not assigned.

Section 3: Composition/information on ingredients**Mixture****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
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Toluene	<= 15	108-88-3 203-625-9	-	601-021-00-3	#
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Classification: **DSD:** F;R11, Repr. Cat. 3;R63, Xn;R65-48/20, Xi;R38, R67

CLP: Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Repr. 2;H361d, STOT RE 2;H373

Methylsilanetriyl Triacetate	<= 5	4253-34-3 224-221-9	-	-	
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Classification: **DSD:** R14, C;R34, Xn;R22

CLP: Acute Tox. 4;H302, Skin Corr. 1B;H314

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

#: This substance has been assigned Community workplace exposure limit(s).

Composition comments The full text for all R- and H-phrases is displayed in section 16. The full text for all R-phrases is displayed in Section 16.

Section 4: First aid measures**General information**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation.

Description of first aid measures**Inhalation**

Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately.

Skin contact

Take off immediately all contaminated clothing. Wash off immediately with plenty of water. Get medical attention if irritation develops and persists.

Eye contact

Flush eyes immediately with large amounts of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth thoroughly. Do not induce vomiting without medical advice. If ingestion of a large amount does occur, call a poison control centre immediately.

Most important symptoms and effects, both acute and delayed

Irritant effects.

Indication of any immediate medical attention and special treatment needed

Oxygen, if needed. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

Section 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Water spray, carbon dioxide, dry powder or polar resistant foam.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture Fire may produce irritating, corrosive and/or toxic gases.

Advice for firefighters

Special protective equipment for firefighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Structural firefighters protective clothing will only provide limited protection.

Special firefighting procedures Use standard firefighting procedures and consider the hazards of other involved materials. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Withdraw immediately in case of rising sound from venting safety device or any discolouration of tanks due to fire. Move containers from fire area if you can do so without risk.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Surfaces may become slippery after spillage. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Avoid inhalation of vapours and spray mists.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the MSDS.

Environmental precautions Prevent further leakage or spillage if safe to do so. Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground.

Methods and material for containment and cleaning up Extinguish all flames in the vicinity. The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. For waste disposal, see section 13.

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 May be ignited by open flame. Keep away from sources of ignition - No smoking. Do not smoke. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure.

Conditions for safe storage, including any incompatibilities Avoid temperatures below 0°C. Do not handle or store near an open flame, heat or other sources of ignition. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Refrigeration recommended. Store in a well-ventilated place.

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Toluene (108-88-3)	STEL	384 mg/m3
		100 ppm
	TWA	191 mg/m3
		50 ppm

EU. Indicative Exposure and Directives relating to the protection of risks related to work exposure to chemical, physical, and biological agents.

Components	Type	Value
Toluene (108-88-3)	STEL	384 mg/m ³
		100 ppm
	TWA	192 mg/m ³
		50 ppm

Biological limit values**EU**

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

United Kingdom

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 Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Avoid contact with eyes. Chemical goggles are recommended. Face-shield.

Skin protection

- Hand protection Wear protective gloves. Viton rubber (fluor rubber).

- Other Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Avoid contact with the skin. Wear chemical protective equipment that is specifically recommended by the manufacturer. Wear protective gloves.

Respiratory protection Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Thermal hazards Not available.

Hygiene measures When using, do not eat, drink or smoke. Avoid contact with eyes. Avoid contact with skin. Wash hands after handling. Handle in accordance with good industrial hygiene and safety practices.

Environmental exposure controls Environmental manager must be informed of all major releases.

Section 9: Physical and chemical properties**Information on basic physical and chemical properties**

Physical state	Liquid.
Form	Liquid.
Colour	Clear.
Odour	Strong.
Odour threshold	Not available.
pH	Not applicable.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	111 °C (231.8 °F) @ 1013 hPa
Flash point	15 °C (59 °F) (DIN 53213)
Auto-ignition temperature	Not applicable.
Ignition temperature	540 °C (1004 °F) (DIN 51794)

Information on basic physical and chemical properties

Flammability (solid, gas) Not available.

Flammability limit - lower (%) 1.2 % v/v

Flammability limit - upper (%) 7 % v/v

Oxidizing properties	Not applicable.
Explosive properties	Not applicable.
Explosive limit	Not applicable.
Vapour pressure	29 hPa @ 20 °C
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Relative density	Not available.
Density	1.06 g/cm³ (DIN 53217) @ 20 °C
Solubility (water)	insoluble
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Bulk density	Not applicable.
Pour point	Not applicable.
Viscosity	Not available.
Viscosity temperature	Not available.
VOC (Weight %)	Not available.
Percent volatile	Not available.
Other data	
Dynamic viscosity	65000 mPa.s @ 23 °C
Other information	No relevant additional information available.

Section 10: Stability and reactivity

Reactivity	Material reacts with water.
Chemical stability	Risk of ignition.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Irritants. Acetic acid

Section 11: Toxicological information

General information	Not available.
Information on likely routes of exposure	
Ingestion	Not available.
Inhalation	Harmful by inhalation.
Skin contact	Irritating to skin.
Eye contact	Irritating to eyes.
Symptoms	Not available.
Information on toxicological effects	
Acute toxicity	Not available.

Components

Toluene (108-88-3)

Test results

Acute Dermal LD50 Rabbit: 12124 mg/kg
Acute Dermal LD50 Rabbit: 14.1 ml/kg
Acute Inhalation LC50 Mouse: 5320 mg/l 8 Hours
Acute Inhalation LC50 Rat: 8000 mg/l 4 Hours
Acute Oral LD50 Rat: 5000 mg/kg
Acute Oral LD50 Rat: 2.6 g/kg
Acute Other LD50 Mouse: 59 mg/kg
Acute Other LD50 Mouse: 1.15 g/kg
Acute Other LD50 Rat: 1332 mg/kg
Acute Other LD50 Rat: 1.64 g/kg

Skin corrosion/irritation	Irritating to skin.
Serious eye damage/eye irritation	Irritating to eyes.

Respiratory sensitisation	Not available.
Skin sensitisation	Not available.
Germ cell mutagenicity	Not available.
Carcinogenicity	Not available.
Reproductive toxicity	Potential embryo-foetal toxicity and teratogenicity.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.
Mixture versus substance information	Not available.
Other information	Not available.

Section 12: Ecological information

Ecotoxicity Not expected to be harmful to aquatic organisms. Avoid discharge into drains, water courses or onto the ground.

Toxicity

Components	Test results
Toluene (108-88-3)	EC50 Water flea (Daphnia magna): 5.46 - 9.83 mg/l 48 hours LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss): 17.6 - 32.6 mg/l 96 hours
Persistence and degradability	No data is available on the degradability of this product. The product contains substances which are not expected to be biodegradable.
Bioaccumulative potential	Potential to bioaccumulate is low.
Mobility	Not available.
Environmental fate - Partition coefficient	Not available.
Mobility in soil	Not available.
Results of PBT and vPvB assessment	Not available.
Other adverse effects	Not available.

Section 13: Disposal considerations

Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Avoid discharge into water courses or onto the ground.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	Waste codes should be assigned by the user based on the application for which the product was used.
Disposal methods/information	This material and its container must be disposed of as hazardous waste. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not discharge into drains, water courses or onto the ground. Dispose in accordance with all applicable regulations.

Section 14: Transport information

ADR

UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Toluene)
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Environmental hazards	No
Tunnel restriction code	D/E
Labels required	3
Special precautions for user	Not available.

IATA

UN number	UN1993
UN proper shipping name	Flammable liquid, n.o.s. (Toluene)

Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Environmental hazards	No
ERG Code	3H
Special precautions for user	Not available.
IMDG	
UN number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Toluene)
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Marine pollutant	No
EmS No.	F-E, S-E
Special precautions for user	Not available.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available.

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.

Commission Decision 2000/479/EC on the implementation of a European pollutant emission register (EPER)

Toluene (CAS 108-88-3)

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

Not listed.

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. Pregnant women should not work with the product, if there is the least risk of exposure.

National regulations

Not available.

Chemical safety assessment

No Chemical Safety Assessment has been carried out.

Section 16: Other information

References Not available.

Information on evaluation method leading to the classification of mixture Not available.

Full text of any statements or R-phrases and H-phrases under Sections 2 to 15

R11 Highly flammable.
R14 Reacts violently with water.
R22 Harmful if swallowed.
R34 Causes burns.
R36/38 Irritating to eyes and skin.
R38 Irritating to skin.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R63 Possible risk of harm to the unborn child.
R65 Harmful: May cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.
H225 - Highly flammable liquid and vapour.
H302 - Harmful if swallowed.
H304 - May be fatal if swallowed and enters airways.

H314 - Causes severe skin burns and eye damage.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H361d - Suspected of damaging the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.

Revision information

Product and company identification: Product and company identification
Composition/Information on Ingredients: Disclosure Overrides
Physical & Chemical Properties: Multiple Properties
Transport information: Material Transportation Information
Regulatory information: Risk Phrases - Class.
HazReg Data: Europe - EU

Training information

Not available.

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

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Not available.

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