

# Safety Data Sheet according to Regulation (EC) No 1907/2006

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SDS No.: 153785 V002.9

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Replaces version from: 10.08.2016

LOCTITE MR 5923 known as Loctite 5923

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

#### 1.1. Product identifier

LOCTITE MR 5923 known as Loctite 5923

#### **Contains:**

Rosin

Propan-2-ol

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:

Sealant

#### 1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000 Fax-no.: +44 1442 278071

ua-productsafety.uk@henkel.com

## 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

#### **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

#### Classification (CLP):

Flammable liquids Category 2

 $H225 \quad Highly \ flammable \ liquid \ and \ vapor.$ 

Serious eye irritation Category 2

H319 Causes serious eye irritation.

Skin sensitizer Category 1

H317 May cause an allergic skin reaction.

Specific target organ toxicity - single exposure Category 3

H336 May cause drowsiness or dizziness. Target organ: Central Nervous System

# 2.2. Label elements

# Label elements (CLP):

Hazard pictogram:



Signal word: Danger

**Hazard statement:** H225 Highly flammable liquid and vapor.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

**Precautionary statement:** P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

**Prevention** No smoking.

P261 Avoid breathing vapours. P280 Wear protective gloves.

**Precautionary statement:** P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

**Response** P337+P313 If eye irritation persists: Get medical advice/attention.

#### 2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

# **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

#### Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
Rosin	232-475-7	20- 40 %	Skin Sens. 1
8050-09-7	01-2119480418-32		H317
Propan-2-ol	200-661-7	20- 40 %	Flam. Liq. 2
67-63-0	01-2119457558-25		H225
			Eye Irrit. 2
			H319
			STOT SE 3
			H336

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

SKIN: Rash, Urticaria.

EYE: Irritation, conjunctivitis.

Vapors may cause drowsiness and dizziness.

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

See section: Description of first aid measures

## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

## Suitable extinguishing media:

Foam, extinguishing powder, carbon dioxide.

## Extinguishing media which must not be used for safety reasons:

High pressure waterjet

#### 5.2. Special hazards arising from the substance or mixture

Vapours may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back.

Formation of toxic gases is possible during heating or in fires.

Oxides of carbon, oxides of nitrogen, irritating organic vapors.

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus.

#### Additional information:

In case of fire, keep containers cool with water spray.

# **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Remove sources of ignition.

Ensure adequate ventilation.

Avoid skin and eye contact.

# 6.2. Environmental precautions

Do not let product enter drains.

# 6.3. Methods and material for containment and cleaning up

Wipe up using absorbent material.

Store in a partly filled, closed container until disposal.

Dispose of contaminated material as waste according to Section 13.

# 6.4. Reference to other sections

See advice in section 8

# **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Keep away from sources of ignition - no smoking.

Vapours should be extracted to avoid inhalation.

Use only in well-ventilated areas.

Avoid skin and eye contact.

See advice in section 8

Avoid open flames and sources of ignition.

#### Hygiene measures:

Good industrial hygiene practices should be observed.

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

# 7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry place.

Do not store near sources of heat or ignition, or reactive materials.

# 7.3. Specific end use(s)

Sealant

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

# **Occupational Exposure Limits**

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Rosin 8050-09-7 [ROSIN-BASED SOLDER FLUX FUME]		0,05	Time Weighted Average (TWA):		EH40 WEL
Rosin 8050-09-7 [ROSIN-BASED SOLDER FLUX FUME]		0,15	Short Term Exposure Limit (STEL):		EH40 WEL
Propan-2-ol 67-63-0 [PROPAN-2-OL]	500	1.250	Short Term Exposure Limit (STEL):		EH40 WEL
Propan-2-ol 67-63-0 [PROPAN-2-OL]	400	999	Time Weighted Average (TWA):		EH40 WEL
Talc (Mg3H2(SiO3)4) 14807-96-6 [TALC, RESPIRABLE DUST]		1	Time Weighted Average (TWA):		EH40 WEL

# **Occupational Exposure Limits**

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Rosin 8050-09-7 [ROSIN CORE SOLDER PYROLYSIS PRODUCTS (AS AIRBORNE TOTAL RESIN ACID)]		0,05	Time Weighted Average (TWA):		IR_OEL
Rosin 8050-09-7 [ROSIN CORE SOLDER PYROLYSIS PRODUCTS (AS AIRBORNE TOTAL RESIN ACID)]		0,15	Short Term Exposure Limit (STEL):		IR_OEL
Propan-2-ol 67-63-0 [ISOPROPYL ALCOHOL]	400		Short Term Exposure Limit (STEL):		IR_OEL
Propan-2-ol 67-63-0 [ISOPROPYL ALCOHOL]	200		Time Weighted Average (TWA):		IR_OEL
Propan-2-ol 67-63-0 [ISOPROPYL ALCOHOL]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Talc (Mg3H2(SiO3)4) 14807-96-6 [TALC, TOTAL INHALABLE DUST]		10	Time Weighted Average (TWA):		IR_OEL
Talc (Mg3H2(SiO3)4) 14807-96-6 [TALC, RESPIRABLE DUST]		0,8	Time Weighted Average (TWA):		IR_OEL

# $\label{eq:predicted} \textbf{Predicted No-Effect Concentration (PNEC):}$

Name on list	Environmental Compartment	Exposure period	Value		Remarks		
	•		mg/l	ppm	mg/kg	others	
Rosin	aqua		0,002 mg/l				
8050-09-7	(freshwater)						
Rosin	aqua (marine		0,0002				
8050-09-7	water)		mg/l				
Rosin	sediment				0,007		
8050-09-7	(freshwater)				mg/kg		
Rosin	sediment				0,001		
8050-09-7	(marine water)				mg/kg		
Rosin	soil				0,0001	Ī	
8050-09-7					mg/kg		
Rosin	sewage		1000 mg/l				
8050-09-7	treatment plant						
	(STP)						
Rosin	aqua		0,016 mg/l				
8050-09-7	(intermittent		1,,,,,,,,				
	releases)						
Propan-2-ol	aqua		140,9 mg/l				
67-63-0	(freshwater)		, ,				
Propan-2-ol	agua (marine		140,9 mg/l				
67-63-0	water)		, ,				
Propan-2-ol	sediment				552 mg/kg		
67-63-0	(freshwater)						
Propan-2-ol	sediment				552 mg/kg		
67-63-0	(marine water)						
Propan-2-ol	soil				28 mg/kg		
67-63-0							
Propan-2-ol	aqua		140,9 mg/l				
67-63-0	(intermittent		, ,				
	releases)						
Propan-2-ol	sewage		2251 mg/l	İ			
67-63-0	treatment plant		3				
	(STP)						
Propan-2-ol	oral				160 mg/kg		
67-63-0							

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#### **Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Rosin 8050-09-7	Workers	inhalation	Long term exposure - systemic effects		117 mg/m3	
Rosin 8050-09-7	Workers	dermal	Long term exposure - systemic effects		17 mg/kg	
Rosin 8050-09-7	General population	inhalation	Long term exposure - systemic effects		35 mg/m3	
Rosin 8050-09-7	General population	dermal	Long term exposure - systemic effects		10 mg/kg	
Rosin 8050-09-7	General population	oral	Long term exposure - systemic effects		10 mg/kg	
Propan-2-ol 67-63-0	Workers	dermal	Long term exposure - systemic effects		888 mg/kg	
Propan-2-ol 67-63-0	Workers	inhalation	Long term exposure - systemic effects		500 mg/m3	
Propan-2-ol 67-63-0	General population	dermal	Long term exposure - systemic effects		319 mg/kg	
Propan-2-ol 67-63-0	General population	inhalation	Long term exposure - systemic effects		89 mg/m3	
Propan-2-ol 67-63-0	General population	oral	Long term exposure - systemic effects		26 mg/kg	

#### **Biological Exposure Indices:**

None

# 8.2. Exposure controls:

## Engineering controls:

Ventilate working rooms thoroughly. Avoid naked flames, sparking and sources of ignition. Switch off electrical devices. Do not smoke, do not weld. Do not empty waste into waste water drains.

#### Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A (EN 14387)

## Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing. Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

# **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Appearance liquid brown
Odor Alcoholic

Odour threshold No data available / Not applicable

pH Not applicable

Melting point No data available / Not applicable Solidification temperature No data available / Not applicable

Initial boiling point > 82 °C (> 179.6 °F) Flash point > 82 °C (> 179.6 °F); None

Evaporation rate 7,7

(Ether = 1)
Flammability
No data available / Not applicable
Explosive limits
No data available / Not applicable

Vapour pressure 33 mm hg

(20 °C (68 °F))

Relative vapour density: 2,07 (Air = 1)

Density 1,1 g/cm3

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Bulk density No data available / Not applicable Solubility No data available / Not applicable

Solubility (qualitative) Partially soluble

Partition coefficient: n-octanol/water

Auto-ignition temperature

Decomposition temperature

Viscosity

No data available / Not applicable
Viscosity (kinematic)

No data available / Not applicable
Explosive properties

No data available / Not applicable
Oxidising properties

No data available / Not applicable
No data available / Not applicable

## 9.2. Other information

No data available / Not applicable

# **SECTION 10: Stability and reactivity**

# 10.1. Reactivity

Strong oxidizing agents.

#### 10.2. Chemical stability

Stable under recommended storage conditions.

# 10.3. Possibility of hazardous reactions

See section reactivity

#### 10.4. Conditions to avoid

Stable under normal conditions of storage and use. Heat, flames, sparks and other sources of ignition.

## 10.5. Incompatible materials

See section reactivity.

#### 10.6. Hazardous decomposition products

carbon oxides. aldehydes

# **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

#### General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

## STOT-single exposure:

May cause drowsiness or dizziness.

#### Oral toxicity:

This material is considered to have low toxicity if swallowed.

#### Skin irritation:

Solvent may remove essential oils from the skin making it susceptible to attack from other chemicals. Prolonged or repeated contact may cause skin irritation.

#### Eye irritation:

Causes serious eye irritation.

## Sensitizing:

May cause an allergic skin reaction.

# Acute oral toxicity:

Hazardous components	Value	Value	Route of	Exposure	Species	Method
CAS-No.	type		application	time		
Rosin	LD50	2.800 mg/kg	oral		rat	not specified
8050-09-7						
Propan-2-ol	LD50	5.840 mg/kg	oral		rat	OECD Guideline 401 (Acute
67-63-0						Oral Toxicity)

## Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Propan-2-ol 67-63-0	LC50	72,6 mg/l		4 h	rat	not specified

#### Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Rosin 8050-09-7	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
Propan-2-ol 67-63-0	LD50	12.870 mg/kg	dermal		rabbit	not specified

# Skin corrosion/irritation:

Hazardous components	Result	Exposure	Species	Method
CAS-No.		time		
Rosin	not irritating	4 h	rabbit	OECD Guideline 404 (Acute
8050-09-7				Dermal Irritation / Corrosion)
Propan-2-ol	slightly irritating	4 h	rabbit	OECD Guideline 404 (Acute
67-63-0				Dermal Irritation / Corrosion)

# Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Rosin	not irritating		rabbit	OECD Guideline 405 (Acute
8050-09-7				Eye Irritation / Corrosion)
Propan-2-ol	moderately irritating		rabbit	OECD Guideline 405 (Acute
67-63-0				Eye Irritation / Corrosion)

# Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Propan-2-ol	not sensitising	Buehler	guinea pig	OECD Guideline 406 (Skin
67-63-0		test		Sensitisation)

# Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Rosin 8050-09-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Propan-2-ol 67-63-0	negative with metabolic activation	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Propan-2-ol 67-63-0	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

# Carcinogenicity:

Hazardous components CAS-No.	Result	Species	Sex	Exposure timeFrequenc y of treatment	Route of application	Method
Propan-2-ol		rat	male/female	104 w	inhalation:	OECD Guideline 451
67-63-0				6 h/d, 5 d/w	vapour	(Carcinogenicity Studies)

# Reproductive toxicity:

Hazardous substances CAS-No.	Result / Classification	Species	Exposure time	Species	Method
Propan-2-ol 67-63-0	NOAEL P = 853 mg/kg	One generation study oral: drinking water		rat	OECD Guideline 415 (One-Generation Reproduction Toxicity Study)
	NOAEL P = 500 mg/kg NOAEL F1 = 1.000 mg/kg	Two generation study oral: gavage		rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

# Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Propan-2-ol		inhalation:	at least 104 w6 h/d, 5	rat	not specified
67-63-0		vapour	d/w		

# **SECTION 12: Ecological information**

#### General ecological information:

Cured Loctite products are typical polymers and do not pose any immediate environmental hazards. Precautions required with respect to Environmental Hazards of articles in which this product is used should be considered. The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

#### 12.1. Toxicity

#### **Ecotoxicity:**

Do not empty into drains / surface water / ground water.

Hazardous components	Value	Value	Acute	Exposure	Species	Method
CAS-No.	type		Toxicity	time		
			Study			
Propan-2-ol	LC50	> 9.640 - 10.000 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline
67-63-0						203 (Fish, Acute
						Toxicity Test)
Propan-2-ol	EC50	> 1.000 mg/l	Algae	96 h	Scenedesmus subspicatus (new	OECD Guideline
67-63-0					name: Desmodesmus	201 (Alga, Growth
					subspicatus)	Inhibition Test)
	NOEC	1.000 mg/l	Algae	96 h	Scenedesmus subspicatus (new	OECD Guideline
		_			name: Desmodesmus	201 (Alga, Growth
					subspicatus)	Inhibition Test)
Propan-2-ol	EC50	> 1.000 mg/l	Bacteria	3 h	activated sludge	OECD Guideline
67-63-0					_	209 (Activated
						Sludge, Respiration
						Inhibition Test)
Propan-2-ol	NOEC	30 mg/l	chronic	21 d	Daphnia magna	OECD 211
67-63-0			Daphnia			(Daphnia magna,
						Reproduction Test)

## 12.2. Persistence and degradability

#### Persistence and Biodegradability:

No data available.

Hazardous components	Result	Route of	Degradability	Method
CAS-No.		application		
Rosin	readily biodegradable	aerobic	71 %	OECD Guideline 301 D (Ready
8050-09-7				Biodegradability: Closed Bottle
				Test)
Propan-2-ol	readily biodegradable	aerobic	70 - 84 %	EU Method C.4-E (Determination
67-63-0				of the "Ready"
				BiodegradabilityClosed Bottle
				Test)

# 12.3. Bioaccumulative potential / 12.4. Mobility in soil

#### Mobility

Cured adhesives are immobile.

## **Bioaccumulative potential:**

No data available.

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Rosin 8050-09-7	> 3 - 6,2					OECD Guideline 117 (Partition Coefficient (noctanol / water), HPLC Method)
Propan-2-ol 67-63-0	0,05					OECD Guideline 107 (Partition Coefficient (noctanol / water), Shake Flask Method)

#### 12.5. Results of PBT and vPvB assessment

Hazardous components	PBT/vPvB
CAS-No.	
Rosin	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
8050-09-7	Bioaccumulative (vPvB) criteria.
Propan-2-ol	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
67-63-0	Bioaccumulative (vPvB) criteria.

## 12.6. Other adverse effects

No data available.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Disposal must be made according to official regulations.

#### Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

**SECTION 14: Transport information** 

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## 14.1. UN number

ADR	1866
RID	1866
ADN	1866
IMDG	1866
IATA	1866

# 14.2. UN proper shipping name

ADR	RESIN SOLUTION
RID	RESIN SOLUTION
ADN	RESIN SOLUTION
IMDG	RESIN SOLUTION
IATA	Resin solution

# 14.3. Transport hazard class(es)

ADR	3
RID	3
ADN	3
IMDG	3
IATA	3

# 14.4. Packing group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

# 14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

## 14.6. Special precautions for user

ADR	Special provision 640D
	Tunnelcode: (D/E)
RID	Special provision 640D
ADN	Special provision 640D
IMDG	not applicable
IATA	not applicable

# 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

# **SECTION 15: Regulatory information**

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

VOC content (2010/75/EC)

25 %

## 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

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# **SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H225 Highly flammable liquid and vapor.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

## **Further information:**

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.