



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

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LOCTITE MR 3863 known as Loctite 3863 2g De/Au

SDS No. : 290257
V002.5

Revision: 16.06.2015
printing date: 29.10.2015

Replaces version from: 11.07.2014

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

1.1. Product identifier

LOCTITE MR 3863 known as Loctite 3863 2g De/Au

Contains:

4-Methylpentan-2-one

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

Intended use:

Coating

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@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 Highly flammable liquid and vapor.

Acute toxicity Category 4

H332 Harmful if inhaled.

Route of Exposure: Inhalation

Serious eye irritation Category 2

H319 Causes serious eye irritation.

Specific target organ toxicity - single exposure Category 3

H335 May cause respiratory irritation.

Target organ: respiratory tract irritation

2.2. Label elements

Label elements (CLP):

Hazard pictogram:**Signal word:** Danger**Hazard statement:**
H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.**Supplemental information** EUH066 Repeated exposure may cause skin dryness or cracking.**Precautionary statement:**
Prevention
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
P261 Avoid breathing vapours.
P280 Wear protective gloves/protective clothing.**Precautionary statement:**
Response P337+P313 If eye irritation persists: Get medical advice/attention.**2.3. Other hazards**

None if used properly.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****General chemical description:**

Solvent based coating

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
4-Methylpentan-2-one 108-10-1	203-550-1 01-2119473980-30	>= 50- < 75 %	Flam. Liq. 2 H225 Acute Tox. 4; Inhalation H332 Eye Irrit. 2 H319 STOT SE 3 H335
Methanol 67-56-1	200-659-6 01-2119433307-44	>= 0,3- < 0,9 %	Flam. Liq. 2 H225 STOT SE 1 H370 Acute Tox. 3; Inhalation H331 Acute Tox. 3; Dermal H311 Acute Tox. 3; Oral H301

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

EYE: Irritation, conjunctivitis.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

Repeated exposure may cause skin dryness or cracking.

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:

Carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x) can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

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

Avoid skin and eye contact.

Ensure adequate ventilation.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well-ventilated areas.

Vapours should be extracted to avoid inhalation.

Keep away from sources of ignition - no smoking.

Hygiene measures:

- Good industrial hygiene practices should be observed.
- Wash hands before work breaks and after finishing work.
- Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

- Store in a cool, well-ventilated place.
- Keep away from heat and direct sunlight.

7.3. Specific end use(s)

Coating

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational Exposure Limits**Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
4-Methylpentan-2-one 108-10-1 [4-METHYLPENTAN-2-ONE]	100	416	Short Term Exposure Limit (STEL):		EH40 WEL
4-Methylpentan-2-one 108-10-1 [4-METHYLPENTAN-2-ONE]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
4-Methylpentan-2-one 108-10-1 [4-METHYLPENTAN-2-ONE]	50	208	Time Weighted Average (TWA):		EH40 WEL
4-Methylpentan-2-one 108-10-1 [4-METHYLPENTAN-2-ONE]	20	83	Time Weighted Average (TWA):	Indicative	ECLTV
4-Methylpentan-2-one 108-10-1 [4-METHYLPENTAN-2-ONE]	50	208	Short Term Exposure Limit (STEL):	Indicative	ECLTV
Methanol 67-56-1 [METHANOL]	250	333	Short Term Exposure Limit (STEL):		EH40 WEL
Methanol 67-56-1 [METHANOL]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Methanol 67-56-1 [METHANOL]	200	266	Time Weighted Average (TWA):		EH40 WEL
Methanol 67-56-1 [METHANOL]	200	260	Time Weighted Average (TWA):	Indicative	ECLTV

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
4-Methylpentan-2-one 108-10-1	aqua (freshwater)					0,6 mg/L	
4-Methylpentan-2-one 108-10-1	aqua (marine water)					0,06 mg/L	
4-Methylpentan-2-one 108-10-1	sediment (freshwater)				8,27 mg/kg		
4-Methylpentan-2-one 108-10-1	sediment (marine water)				0,83 mg/kg		
4-Methylpentan-2-one 108-10-1	soil				1,3 mg/kg		
4-Methylpentan-2-one 108-10-1	STP					27,5 mg/L	
4-Methylpentan-2-one 108-10-1	aqua (intermittent releases)					1,5 mg/L	
Methanol 67-56-1	aqua (freshwater)					20,8 mg/L	
Methanol 67-56-1	sediment (freshwater)				77 mg/kg		
Methanol 67-56-1	aqua (marine water)					2,08 mg/L	
Methanol 67-56-1	soil				3,18 mg/kg		
Methanol 67-56-1	STP					100 mg/L	
Methanol 67-56-1	aqua (intermittent releases)					1540 mg/L	
Methanol 67-56-1	sediment (marine water)				7,7 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
4-Methylpentan-2-one 108-10-1	Workers	Inhalation	Acute/short term exposure - systemic effects		208 mg/m ³	
4-Methylpentan-2-one 108-10-1	Workers	Inhalation	Acute/short term exposure - local effects		208 mg/m ³	
4-Methylpentan-2-one 108-10-1	Workers	Inhalation	Long term exposure - systemic effects		83 mg/m ³	
4-Methylpentan-2-one 108-10-1	Workers	Inhalation	Long term exposure - local effects		83 mg/m ³	
4-Methylpentan-2-one 108-10-1	Workers	Dermal	Long term exposure - systemic effects		11,8 mg/kg bw/day	
4-Methylpentan-2-one 108-10-1	general population	Inhalation	Acute/short term exposure - systemic effects		155,2 mg/m ³	
4-Methylpentan-2-one 108-10-1	general population	Inhalation	Acute/short term exposure - local effects		155,2 mg/m ³	
4-Methylpentan-2-one 108-10-1	general population	Inhalation	Long term exposure - systemic effects		14,7 mg/m ³	
4-Methylpentan-2-one 108-10-1	general population	Inhalation	Long term exposure - local effects		14,7 mg/m ³	
4-Methylpentan-2-one 108-10-1	general population	Dermal	Long term exposure - systemic effects		4,2 mg/kg bw/day	
4-Methylpentan-2-one 108-10-1	general population	oral	Long term exposure - systemic effects		4,2 mg/kg bw/day	
Methanol 67-56-1	Workers	Dermal	Acute/short term exposure - systemic effects		40 mg/kg bw/day	
Methanol 67-56-1	Workers	Inhalation	Acute/short term exposure - systemic effects		260 mg/m ³	
Methanol 67-56-1	Workers	Inhalation	Acute/short term exposure - local effects		260 mg/m ³	
Methanol 67-56-1	Workers	Dermal	Long term exposure - systemic effects		40 mg/kg bw/day	
Methanol 67-56-1	Workers	Inhalation	Long term exposure - systemic effects		260 mg/m ³	
Methanol 67-56-1	Workers	Inhalation	Long term exposure - local effects		260 mg/m ³	
Methanol 67-56-1	general population	Dermal	Acute/short term exposure - systemic effects		8 mg/kg bw/day	
Methanol 67-56-1	general population	Inhalation	Acute/short term exposure - systemic effects		50 mg/m ³	
Methanol 67-56-1	general population	oral	Acute/short term exposure - systemic effects		8 mg/kg bw/day	
Methanol 67-56-1	general population	Inhalation	Acute/short term exposure - local effects		50 mg/m ³	
Methanol 67-56-1	general population	Dermal	Long term exposure - systemic effects		8 mg/kg bw/day	
Methanol 67-56-1	general population	Inhalation	Long term exposure - systemic effects		50 mg/m ³	
Methanol 67-56-1	general population	oral	Long term exposure -		8 mg/kg bw/day	

Methanol 67-56-1	general population	Inhalation	systemic effects Long term exposure - local effects		50 mg/m3	
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Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
4-Methylpentan-2-one 108-10-1 [4-METHYLPENTAN-2-ONE]	4- methylpentan -2-one	Urine	Sampling time: End of shift.		UKEH40BMG V		

8.2. Exposure controls:**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

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:

Wear protective glasses.

Skin protection:

Wear suitable protective clothing.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	liquid silver
Odor	characteristic
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Initial boiling point	114 °C (237.2 °F)
Flash point	14 °C (57.2 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure (20 °C (68 °F))	8 hPa
Density (20 °C (68 °F))	0,965 g/cm3
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Not miscible
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable

Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	
lower	1,7 % (V)
upper	9 % (V)
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

Ignition temperature	460 °C (860 °F)
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with strong acids.
Reacts with strong oxidants.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

No decomposition if used according to specifications.

10.5. Incompatible materials

See section reactivity

10.6. Hazardous decomposition products

Irritating organic vapours.

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 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

STOT-single exposure:

May cause respiratory irritation.

Oral toxicity:

May cause irritation to the digestive tract.

Inhalative toxicity:

Harmful if inhaled.

Skin irritation:

Solvent may remove essential oils from the skin making it susceptible to attack from other chemicals.
Repeated exposure may cause skin dryness or cracking.

Eye irritation:

Causes serious eye irritation.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
4-Methylpentan-2-one 108-10-1	LD50	2.080 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Methanol 67-56-1	Acute toxicity estimate (ATE)	100 mg/kg	oral			Expert judgement

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
4-Methylpentan-2-one 108-10-1	Acute toxicity estimate (ATE)	11 mg/l	Vapor.			Expert judgement
4-Methylpentan-2-one 108-10-1	LC50	8,2 - 16,4 mg/l	Vapor.	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Methanol 67-56-1	Acute toxicity estimate (ATE)	3 mg/l	Vapour			Expert judgement

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
4-Methylpentan-2-one 108-10-1	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
4-Methylpentan-2-one 108-10-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Methanol 67-56-1	not irritating		rabbit	BASF Test

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
4-Methylpentan-2-one 108-10-1	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Methanol 67-56-1	not irritating		rabbit	BASF Test

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
4-Methylpentan-2-one 108-10-1	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Methanol 67-56-1	not sensitising	Guinea pig maximisation test	guinea pig	Magnusson and Kligman Method

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
4-Methylpentan-2-one 108-10-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Methanol 67-56-1	NOAEL=6,63 mg/l	inhalation	4 weeks 6 h/d, 5 d/w	rat	

SECTION 12: Ecological information**General ecological 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 1272/2008/EC. 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 CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
4-Methylpentan-2-one 108-10-1	LC50	600 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
4-Methylpentan-2-one 108-10-1	EC50	170 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
4-Methylpentan-2-one 108-10-1	EC50	400 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methanol 67-56-1	LC50	> 1.000 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
	NOEC	7.900 mg/l	Fish	200 h	Oryzias latipes	OECD 210 (fish early life stage toxicity test)
Methanol 67-56-1	EC50	> 10.000 mg/l	Daphnia	48 h	Daphnia magna	
Methanol 67-56-1	EC50	28,44 g/l	Algae		Chlorella pyrenoidosa	OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability**Persistence and Biodegradability:**

No data available.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
4-Methylpentan-2-one 108-10-1	readily biodegradable	aerobic	99 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Methanol 67-56-1	readily biodegradable	aerobic	82 - 92 %	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil**Mobility:**

The product is insoluble and floats on water.

Bioaccumulative potential:

No data available.

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
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4-Methylpentan-2-one 108-10-1	1,31				20 °C	
Methanol 67-56-1	-0,77					

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
4-Methylpentan-2-one 108-10-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Methanol 67-56-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very 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:

Disposal must be made according to official regulations.

Waste code

14 06 03 - other solvents and solvent mixtures

SECTION 14: Transport information**14.1. UN number**

ADR	1263
RID	1263
ADN	1263
IMDG	1263
IATA	1263

14.2. UN proper shipping name

ADR	PAINT RELATED MATERIAL
RID	PAINT RELATED MATERIAL
ADN	PAINT RELATED MATERIAL
IMDG	PAINT RELATED MATERIAL
IATA	Paint related material

14.3. Transport hazard class(es)

ADR	3
RID	3
ADN	3
IMDG	3
IATA	3

14.4. Packaging 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 73/78 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)	69,38 %
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15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

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.
- H301 Toxic if swallowed.
- H311 Toxic in contact with skin.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H370 Causes damage to organs.

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.

Label elements (DPD):

F - Highly flammable



Xn - Harmful



Risk phrases:

- R11 Highly flammable.
- R20 Harmful by inhalation.
- R36/37 Irritating to eyes and respiratory system.
- R66 Repeated exposure may cause skin dryness or cracking.

Safety phrases:

- S23 Do not breathe vapour.
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S37 Wear suitable gloves.
- S51 Use only in well-ventilated areas.

Contains:

4-Methylpentan-2-one

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.