



Safety Data Sheet according to GB/T 16483-2008

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LOCTITE FREKOTE PMC CAN1GALEN

SDS No. : 153838

V001.6

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1. Identification of the substance/preparation and of the company/undertaking

Product name: LOCTITE FREKOTE PMC CAN1GALEN

Intended use: Solvent cleaner

Manufacturer/Importer/Distributor Representative Company

Henkel Adhesive Technology (Shanghai) Co., Ltd.
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Revision date: 29.11.2021

Emergency information: +86 21 2891 8311 (24h).

2. Hazards identification

Classification of the substance or mixture according to GB 13690-2009 (General rule for classification and hazard communication of chemicals):

<u>Hazard Class</u>	<u>Hazard Category</u>	<u>Route of Exposure</u>	<u>Target organ</u>
Flammable liquids	Category 2		
Acute toxicity	Category 5	Inhalation	
Skin corrosion/irritation	Category 2		
Serious eye damage/eye irritation	Category 2A		
Toxic to reproduction	Category 2		
Specific target organ toxicity - single exposure	Category 3		Central nervous system
Specific target organ toxicity - repeated exposure	Category 2	Inhalation	Central nervous system
Aspiration hazard	Category 1		
Acute hazards to the aquatic environment	Category 2		
Chronic hazards to the aquatic environment	Category 3		

Label elements according to GB 15258-2009 (General rules for preparation of precautionary label for chemicals):

Hazard pictogram:



Signal word:	Danger
Hazard statement:	H225 Highly flammable liquid and vapor. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H319 Causes serious eye irritation. H333 May be harmful if inhaled. H336 May cause drowsiness or dizziness. H361 Suspected of damaging fertility or the unborn child. H373 May cause damage to organs through prolonged or repeated exposure if inhaled. H401 Toxic to aquatic life. H412 Harmful to aquatic life with long lasting effects.
Prevention:	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting equipment. P242 Use non-sparking tools. P243 Take action to prevent static discharges. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash hands thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment.
Response:	P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 IF exposed or concerned: Get medical advice/attention. P331 Do NOT induce vomiting. P332+P313 If skin irritation occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage:	P403+P233 Store in a well-ventilated place. Keep container tightly closed. P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.
Disposal:	P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

3. Composition / information on ingredients

General description: Mixture
Declaration of the ingredients according to GB 13690-2009:

Hazard component CAS-No.	Content	GHS Classification
Toluene 108-88-3	50- < 70 %	Flammable liquids 2 H225 Acute toxicity 5; Inhalation H333 Skin corrosion/irritation 2 H315 Toxic to reproduction 2 H361 Specific target organ toxicity - single exposure 3 H336 Specific target organ toxicity - repeated exposure 2; Inhalation H373 Aspiration hazard 1 H304 Acute hazards to the aquatic environment 2 H401 Chronic hazards to the aquatic environment 3 H412
Butanone 78-93-3	30- < 50 %	Flammable liquids 2 H225 Acute toxicity 5; Oral H303 Skin corrosion/irritation 3 H316 Serious eye damage/eye irritation 2A H319 Specific target organ toxicity - single exposure 3 H336 Aspiration hazard 2 H305

Only hazardous ingredients for which a classification according to GB 13690-2009 is already available are displayed in this table. For full text of the Hazard statements see section 16 "Other information".

4. First aid measures

- Skin contact:** Remove contaminated clothing and footwear.
Wash with soap and water.
If symptoms develop and persist, get medical attention.
Wash clothing before reuse.
- Eye contact:** Immediately flush eyes with water for at least 15 minutes, while holding eyelids open.
Seek medical attention at once.
- Inhalation:** Move to fresh air.
Seek medical advice.
- Ingestion:** Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

5. Fire fighting measures

Hazardous characteristics:	In case of fire toxic / flammable gases can be released.
Hazardous combustion products:	Irritating organic vapours. Oxides of carbon.
Extinguishing media:	Carbon dioxide, foam, powder Water spray jet
Notice and measures for firing fighting:	Can form explosive gas/air mixtures. Wear protective equipment.

6. Accidental release measures

Emergency measures:	Avoid contact with skin and eyes. Do not allow to enter in surface / ground water. Avoid inhalation of vapor, fumes, dust and/or mist from the spilled material.
Clean-up methods:	Soak up small spills with absorbent material and place in labeled containers for recovery or disposal.

7. Handling and storage

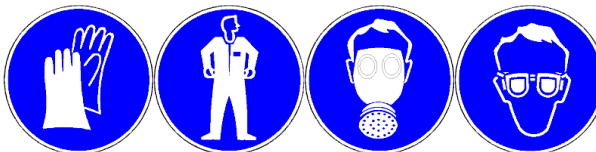
Notice for handling:	Keep away from heat, spark and flame. Ensure adequate ventilation. Wear suitable protective clothing, safety glasses and gloves.
Notice for storage:	Refer to Technical Data Sheet

8. Exposure controls / personal protection

Hazardous components	GBZ 2.1-2019	ACGIH	NIOSH	OSHA
Toluene	50 mg/m ³ PC-TWA 100 mg/m ³ PC-STEL (SKIN)	20 ppm TWA		none
Butanone	300 mg/m ³ PC-TWA 600 mg/m ³ PC-STEL	200 ppm TWA 300 ppm TWA		none

Engineering controls:	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
Respiratory protection:	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
Eye protection:	Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Body protection:	Wear protective equipment.
Hand protection:	The use of chemical resistant gloves such as Nitrile is recommended. Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

Pictograms for recommended PPE:



9. Physical and chemical properties

Physical state:	liquid	Appearance:	Colorless
Evaporation rate:	Not available.	Odor:	Characteristic
pH:	Not applicable	Melting point:	Not available.
Boiling point:	Not available.	Density:	0.712 g/cm ³
Vapor density:	Not available.	Vapor pressure:	Not available.
Flash point:	0 °C (32 °F)	Ignition temperature:	> 450 °C (> 842 °F)
Lower explosive limit:	Not available.	Upper explosive limit:	Not available.
Solubility in water	Slightly soluble	Viscosity:	Not available.
Auto-ignition temperature:	Not available.	Flammability:	Not available.
Octanol / water distribution coefficient:	Not available.	Decomposition temperature:	Not available.
VOC:	, Out of China VOC standards Scope		

10. Stability and reactivity

Stability:	Stable
Conditions to avoid:	Heat, flames, sparks and other sources of ignition.
Incompatible products:	Reaction with oxidants.
Decomposition products:	hydrocarbons carbon oxides.

11. Toxicological information

General toxicological information:
No laboratory animal data available.

Oral toxicity:
Acute toxicity estimate (ATE) : > 5,000 mg/kg
Method: Calculation method

Inhalative toxicity:
Acute toxicity estimate (ATE) : 26.52 mg/l
Exposure time: 4 h
Test atmosphere: Vapor.
Method: Calculation method

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Toluene 108-88-3	not carcinogenic	inhalation: vapour	103 w 6.5 h/d, 5 d/w	rat	male/female	equivalent or similar OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Toluene 108-88-3	LD50 LC50 LD50	5,580 mg/kg 28.1 mg/l > 5,000 mg/kg	oral inhalation dermal	4 h	rat rat rabbit	EU Method B.1 (Acute Toxicity (Oral)) equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) not specified
Butanone 78-93-3	LD50 LC50 LD50	2,737 mg/kg > 20 mg/l > 6,400 mg/kg	oral inhalation dermal	4 h	rat rat rabbit	not specified not specified not specified

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Toluene 108-88-3	irritating	4 h	rabbit	EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion)
Butanone 78-93-3	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Toluene 108-88-3	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Butanone 78-93-3	irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Toluene 108-88-3	not sensitising	Guinea pig maximisation test	guinea pig	EU Method B.6 (Skin Sensitisation)
Butanone 78-93-3	not sensitising	Buehler test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Toluene 108-88-3	negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay	with and without with and without		EU Method B.13/14 (Mutagenicity) equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Toluene 108-88-3	negative negative	intraperitoneal inhalation: vapour		rat mouse	not specified OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
Butanone 78-93-3	negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test mammalian cell gene mutation assay	with and without not applicable with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Butanone 78-93-3	negative	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Toluene 108-88-3	NOAEL=625 mg/kg	oral: gavage	13 wdaily, 5 d/w	rat	EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Toluene 108-88-3	NOAEL=1131 mg/m3	inhalation: vapour	24 m6.5 h/d, 5 d/w	rat	equivalent or similar to OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Toluene 108-88-3	NOAEL=2355 mg/m3	inhalation: vapour	15 w6.5 h/d, 5 d/w	rat	EU Method B.29 (Sub-Chronic Inhalation Toxicity Test:90-Day Repeated Inhalation Dose Study Using Rodent Species)
Butanone 78-93-3	NOAEL=2500 ppm	inhalation	90 days6 hours/day, 5 days/week	rat	not specified
Butanone 78-93-3	LOAEL=5000 ppm	inhalation	90 days6 hours/day, 5 days/week	rat	not specified

12. Ecological information**General ecological information:**

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

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Toluene 108-88-3	NOEC	3.2 mg/l	Fish	28 d	Cyprinodon variegatus	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Toluene 108-88-3	LC50	5.5 mg/l	Fish	96 h	Oncorhynchus kisutch	OECD Guideline 203 (Fish, Acute Toxicity Test)
Toluene 108-88-3	EC50	3.78 mg/l	Daphnia	48 h	Ceriodaphnia dubia	other guideline:
Toluene 108-88-3	IC50	12 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Toluene 108-88-3	NOEC	29 mg/l	Bacteria	16 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshe mm-Test)
Butanone 78-93-3	LC50	3,220 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Butanone 78-93-3	EC50	5,091 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butanone 78-93-3	EC50	2,029 mg/l	Algae	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butanone 78-93-3	EC10	1,289 mg/l	Algae	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butanone 78-93-3	EC50	1,150 mg/l	Bacteria	16 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshe mm-Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Toluene 108-88-3	readily biodegradable	aerobic	80 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Butanone 78-93-3	readily biodegradable	aerobic	98 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Toluene 108-88-3		90	3 d	Leuciscus idus melanotus		OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Toluene 108-88-3	2.73				20 °C	EU Method A.8 (Partition Coefficient)
Butanone 78-93-3	0.3				40 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

13. Disposal considerations

- 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.

14. Transport information

Road transport CN_DG:

Class: 3
Packing group: II
Classification code:
Hazard ident. number:
UN no.: 1993
Label: 3
Technical name: FLAMMABLE LIQUID, N.O.S. (Toluene,Methyl ethyl ketone)

Marine transport IMDG:

Class: 3
Packing group: II
UN no.: 1993
Label: 3
EmS: F-E ,S-E
Seawater pollutant: -
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Toluene,Methyl ethyl ketone)

Air transport IATA:

Class: 3
Packing group: II
Packaging instructions (passenger): 353
Packaging instructions (cargo): 364
UN no.: 1993
Label: 3
Proper shipping name: Flammable liquid, n.o.s. (Toluene,Methyl ethyl ketone)

Notice For Transportation: Transport according to local and national regulations. Ensure containers will not leak, collapse, or being damaged when transported. DO NOT transport with incompatible materials. Transportation vehicle should be equipped with right fire-fighting equipment in case of emergency. Avoid solarization, drenched and high temperature when transported.

15. Regulatory information

The following laws and regulations lay down provisions in terms of chemicals safety use, storage, transportation, loading/unloading, classification as well as symbol.

“Law of the People's Republic of China on Work Safety” (Adopted by the 28th meeting of 9th NPC standing committee on 29th June 2002, revised by 10th meeting of 12nd NPC standing committee on 31st Aug 2014).

Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases” (Adopted by the 24th meeting of 9th NPC standing committee on 27th October 2001, revised by 7th meeting of 13rd NPC standing committee on 29th Dec 2018).

“Law of the People's Republic of China on environmental protection” (Adopted by 11st meeting of 7th NPC standing committee on 26th December 1989, revised by 8th meeting of 12nd NPC standing committee on 24th Apr 2014).

“Regulation on the Safety Management of Hazardous Chemicals” (Adopted by 32nd State Council executive meeting on 4th December 2013).

“Regulations on License to Work Safety” (Adopted by 54th State Council executive meeting on 29th July 2014).

China Inventory of Existing Chemicals:

All components are listed or are exempt from Inventory of Existing Chemical Substances in China.

16. Other information

Issue date:

30.08.2023

Issue department:

Product Safety & Regulatory Affairs for China

Disclaimer:

This Safety Data Sheet has been generated in accordance with Chinese law only. It provides information on the chemical product in the aspects of safety, health, environment, etc, recommending preventive and protective measures and countermeasures in case of emergency. The information contained herein does not constitute a guarantee concerning the properties of the material. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance. 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. The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates (“Henkel”) does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user’s responsibility to determine the suitability of Henkel’s products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel’s products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel’s products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

Others:

The full text of all abbreviations indicated by codes in this safety data sheet section 3 are as follows:

H225 Highly flammable liquid and vapor.

H303 May be harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H305 May be harmful if swallowed and enters airways.

H315 Causes skin irritation.

H316 Causes mild skin irritation.

H319 Causes serious eye irritation.

H333 May be harmful if inhaled.

H336 May cause drowsiness or dizziness.

H361 Suspected of damaging fertility or the unborn child.