

Safety Data Sheet

according to GSO 2654:2021

Mintex MCL500

Revision date: 13.12.2022

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Mintex Brake Cleaner

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

Cleaning agent

1.3. Details of the supplier of the safety data sheet

Company name:	TMD Friction Services GmbH	
Street:	Schlebuscher Str. 99	
Place:	D-51381 Leverkusen	
Telephone:	+49 (2171)703-0	
e-mail:	serviceline@tmdfriction.com	
Contact person:	Hr. Beier	Telephone: +49 (2171)9113-7373
e-mail:	serviceline@tmdfriction.com	
Internet:	www.tmdfriction.com	

1.4. Emergency telephone number: GIZ Bonn: +49 (0)228-19240 (24/7)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GSO 2654:2021**

Aerosol 1; H222-H229
Asp. Tox. 1; H304
Skin Irrit. 2; H315
STOT SE 3; H336
Aquatic Chronic 2; H411

2.2. Label elements**GSO 1810:2007****Hazard components for labelling**

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-49-0)

Signal word: Danger**Pictograms:****Hazard statements**

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe Aerosol.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of waste according to applicable legislation.

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	Classification (GB CLP Regulation)	
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-49-0)	95 - < 100 %
	921-024-6	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411	
124-38-9	carbon dioxide, compressed or liquid; carbonic anhydride	1 - < 5 %
	204-696-9	

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
	921-024-6	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-49-0)	95 - < 100 %
		inhalation: LC50 = > 25,2 mg/l (vapours); dermal: LD50 = > 2800 - 3100 mg/kg; oral: LD50 = > 5000 mg/kg	

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice.

After inhalation

Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a doctor.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

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

Symptoms can occur only after several hours.
Headache, Dizziness, Fatigue, Causes skin irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Water mist, Carbon dioxide (CO₂), Foam, Extinguishing powder.
Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Extremely flammable aerosol. Pressurized container: May burst if heated. Vapours can form explosive mixtures with air.

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO₂), aldehydes, carbon black, Pyrolysis products, toxic.

5.3. Advice for firefighters

Do not inhale explosion and combustion gases. Move undamaged containers from immediate hazard area if it can be done safely.

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Evacuate area.

For non-emergency personnel

Remove all sources of ignition. Provide adequate ventilation. Use personal protection equipment.

For emergency responders

Use personal protection equipment.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up**For containment**

Stop leak if safe to do so. Cover drains.

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Ventilate affected area.

Other information

Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7

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Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Observe instructions for use.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

Use personal protection equipment.

Advice on protection against fire and explosion

Do not spray on naked flames or any incandescent material. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Heating causes rise in pressure with risk of bursting. Take precautionary measures against static discharges.

Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

Further information on handling

Do not pierce or burn, even after use.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Protect against: frost. Keep away from heat. Protect from direct sunlight.

7.3. Specific end use(s)

Cleaning agent

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****(OSHAD-SF) Occupational Standards and Value Guidelines (Version 3.0)**

Oil mist (mineral) mildly refined:

TWA: 0,2 mg/m³

Carbon dioxide (CAS: 124-38-9):

TWA: 5000 ppm 9000 mg/m³

STEL: 30000 ppm 45000

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DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-49-0)		
Worker DNEL, long-term	inhalation	systemic	2035 mg/m ³
Worker DNEL, long-term	dermal	systemic	773 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	608 mg/m ³
Consumer DNEL, long-term	dermal	systemic	699 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	699 mg/kg bw/day

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection. Eye glasses with side protection (EN 166)

Hand protection

Wear suitable gloves tested to EN374.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Suitable material: NBR (Nitrile rubber) penetration time (maximum wearing period): > 480 min.

Thickness of glove material: 0,45 mm

Skin protection

Wear suitable protective clothing.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation, Vapour, exceeding exposure limit values.

Suitable respiratory protection apparatus: Combination filter device (DIN EN 141)..

Filtering device with filter or ventilator filtering device of type: AX

Observe the wear time limits as specified by the manufacturer.

Thermal hazards

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid (Aerosol)
Colour:	colourless
Odour:	like: Solvents
Odour threshold:	not applicable

Changes in the physical state

Melting point/freezing point: not determined

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Boiling point or initial boiling point and boiling range: 88 °C

Flash point: -12 °C

Flammability

Solid/liquid: not applicable

Gas: not applicable

Explosive properties

Heating may cause an explosion. Vapours can form explosive mixtures with air.

Lower explosion limits: 0,6 vol. %

Upper explosion limits: 7,2 vol. %

Auto-ignition temperature: not determined

Decomposition temperature: not determined

pH-Value: not applicable

Viscosity / kinematic: < 7 mm²/s

Water solubility: practically insoluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

Vapour pressure: not determined

Density (at 20 °C): 0,714 g/cm³

Relative vapour density: not determined

Particle characteristics: not applicable

9.2. Other information**Other safety characteristics**

No information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

Extremely flammable aerosol.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Heating causes rise in pressure with risk of bursting.

Vapours can form explosive mixtures with air.

10.4. Conditions to avoid

Do not expose to temperatures above 50 °C. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Protect against: frost. Keep away from heat. Protect from direct sunlight.

10.5. Incompatible materials

Oxidizing agent. Pyrophoric or self-heating substances.

10.6. Hazardous decomposition productsIn case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO₂), aldehydes, carbon black, Pyrolysis products, toxic.**Further information**

Do not mix with other chemicals.

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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-49-0)				
	oral	LD50 > 5000 mg/kg	Rat	Manufacturer	
	dermal	LD50 > 2800 - 3100 mg/kg	Rat	Manufacturer	
	inhalation (4 h) vapour	LC50 > 25,2 mg/l	Rat	Manufacturer	

Irritation and corrosivity

Causes skin irritation.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness. (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-49-0))

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

May be fatal if swallowed and enters airways.

Information on likely routes of exposure

Eye contact, Skin contact, Inhalation.

Active agent: oral

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-49-0)					
	Acute fish toxicity	LC50 > 1 - 10 mg/l	96 h	Pimephales promelas (fathead minnow)	Manufacturer	
	Acute algae toxicity	ErC50 10 - 30 mg/l	72 h	Pseudokirchneriella subcapitata	Manufacturer	OECD 201
	Acute crustacea toxicity	EC50 > 1 - 10 mg/l	48 h	Daphnia magna (Big water flea)	Manufacturer	

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12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name	Method	Value	d	Source
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-49-0)	OECD 301F	98 %	28	Manufacturer
	Readily biodegradable (according to OECD criteria).				

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-49-0)	3,4 - 5,2

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Do not pierce or burn, even after use.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number or ID number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2.1



Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L

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Excepted quantity: E0
 Transport category: 2
 Tunnel restriction code: D

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
 Hazard label: 2.1



Classification code: 5F
 Special Provisions: 190 327 344 625
 Limited quantity: 1 L
 Excepted quantity: E0

Marine transport (IMDG)

14.1. UN number or ID number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
 Hazard label: 2.1



Marine pollutant: P
 Special Provisions: 63, 190, 277, 327, 344, 381, 959
 Limited quantity: 1000 mL
 Excepted quantity: E0
 EmS: F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1950
14.2. UN proper shipping name: AEROSOLS, FLAMMABLE
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
 Hazard label: 2.1



Special Provisions: A145 A167 A802
 Limited quantity Passenger: 30 kg G
 Passenger LQ: Y203
 Excepted quantity: E0
 IATA-packing instructions - Passenger: 203
 IATA-max. quantity - Passenger: 75 kg
 IATA-packing instructions - Cargo: 203
 IATA-max. quantity - Cargo: 150 kg

14.5. Environmental hazards

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ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-49-0)

14.6. Special precautions for user

Warning: Flammable gases, flammable liquids

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles.

Observe in addition any national regulations!**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 6,7,9,11,12,14.

Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienist
ATE: Acute toxicity estimate
BCF: Bio-concentration factor
CAS: Chemical Abstracts Service
DGR: Dangerous Goods Regulations
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
EC50: Effective Concentration 50%
EL50: Effect loading, 50%
ErC50: Effective Concentration 50%, growth rate
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
IATA: International Air Transport Association
IBC: Intermediate Bulk Container
ICAO: International Civil Aviation Organization
IMDG: International Maritime Code for Dangerous Goods
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
NOEC: No Observed Effect Concentration
OEL: Occupational Exposure Limit
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
STEL: Short-Term Exposure Limit
TWA: Time weighted average

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UN: United Nations

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)