

MANNOL[®] MATERIAL SAFETY DATA SHEET

Prepared according to Annex II of EC Regulation 1907/2006

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: M-40 Lubricant

Product Use: Multifunction lubricant

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Company Information: Sudheimer Car Technik Vertriebs GmbH

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2. COMPOSITION/INFORMATION ON INGREDIENTS

To people

See point 11 and 15.

The mixture is classified as dangerous in the terms of the directive 1999/45/EC. Extremely flammable. Product is flammable.

43 May cause sensitization by skin contact.

66 Repeated exposure may cause skin dryness or cracking.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.

Keep away from sources of ignition - No smoking. Keep out of the reach of children. Without adequate ventilation, formation of explosive mixtures may be possible.

To the environment

See section 12.

3. HAZARDS IDENTIFICATION			
Chemical			
Content %	Symbol	R-phrases	EINECS, ELINCS
	Registration number (ECHA)	Classification categories	

Naphtha (petroleum), hydro desulfurized heavy			
40-60	Xn	65-66	265-150-3
		Harmful	

Isoalkanes			
1<10	Xn	53-65-66	292-459-0
		Dangerous for the environment, Harmful	

Benzene, C9-13 alkyl dervs., distn. Residues, sulfonated, calcium salts			
1-5		43	307-593-8
		Sensitizing	

Carbon dioxide			
1-5			204-090-9

Alkanes, C10-13-iso-			
1-5	Xn	65-66	271-366-9
		Harmful	

<p>4. FIRST AID MEASURES</p> <p>4.1 Inhalation: Remove person from danger area. Supply person with fresh air and consult doctor according to symptoms. If the person is unconscious, place in a stable side position and consult a doctor.</p> <p>4.2 Skin contact: Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.</p> <p>4.3 Eye contact: Remove contact lenses. Wash thoroughly for several minutes using copious water. Seek medical help if necessary.</p> <p>4.4 Ingestion: Typically no exposure pathway. Rinse the mouth thoroughly with water. Do not induce vomiting. Consult doctor immediately. Danger of aspiration In case of vomiting, keep head low so that the stomach content does not reach the lungs.</p> <p>4.5 Most important symptoms and effects, both acute and delayed: n.av.</p> <p>4.6 Indication of any immediate medical attention and special treatment needed Indications for the physician: Symptomatic treatment</p>

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media: Adapt to the nature and extent of fire. Water jet spray/foam/CO₂/dry extinguisher Cool container at risk with water.

5.2 Extinguishing media which shall not be used for safety reasons: High volume water jet.

5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

In case of fire the following can develop:

Oxides of carbon;

Oxides of sulphur

Hydrocarbons;

Toxic pyrolysis products. Danger of bursting (explosion) when heated Explosive vapour/air mixture.

5.4 Special protective equipment for fire-fighters:

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire. Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Remove possible causes of ignition - do not smoke. Ensure sufficient supply of air.

Avoid inhalation, and contact with eyes or skin. If applicable, caution – risk of slipping.

6.2 Environmental precautions:

Prevent from entering drainage system. Prevent surface and ground-water infiltration, as well as ground penetration. If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up: If spray or gas escapes, ensure ample fresh air is available.

Active substance:

Collect using absorbant material (e.g. Universal binding medium, sand, kieselguhr) and dispose of According to point 13.

6.4 Reference to other sections:

Refer to section 13. and for personal protection refer to section 8.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

In addition to information given in this section, relevant information can also be found in section 8 and 6.1. Ensure good ventilation.

Avoid inhalation of the vapours. Keep away from sources of ignition - Do not smoke. Do not use on hot surfaces. Avoid contact with eyes or skin. Eating, drinking, smoking, as well as food-storage, is prohibited in work-room. Observe directions on label and instructions for use.

Use working methods according to operating instructions.

7.2 Conditions for safe storage, including any incompatibilities.

Not to be stored in gangways or stair wells. Do not store with oxidizing agents. Observe special regulations for aerosols! Observe special storage conditions (in Germany, e.g., in accordance with the regulations in the "Betriebssicherheitsverordnung"). Store in a well ventilated place. Keep protected from direct sunlight and temperatures over 50°C.

7.3 Specific end use(s):

n.av.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Chemical name	Naphtha (petroleum), hydrodesulfurized heavy	Content % 40-60
WEL-TWA: 1200mg /m ³ (normal and branched chain \geq C7) (WEL), 600 mg/m ³ (AGW)	WEL-STEL: 2(II) (AGW)	---
BMGV: ---	Other informations: ---	

Chemical name	Isoalkanes (c9-12)	Content % 1->10
WEL-TWA: 1200mg /m ³ (normal and branched chain \geq C7) (WEL), 600 mg/m ³ (AGW)	WEL-STEL: 2(II) (AGW)	---
BMGV: ---	Other informations: ---	

Chemical name	Carbon dioxide	Content % 1.-5
WEL-TWA: 5000 ppm (9150 mg/m ³) (WEL), 5000 ppm (9000 mg/m ³) (EC)	WEL-STEL: 15000 ppm (27400 mg/m ³) (WELL)	---
BMGV: ---	Other informations: ---	

Chemical name	Alkanes, C10-13-iso	Content % 1.-5
WEL-TWA: 1200 mg/m ³ (normal and branched chian \geq C7) (WEL), 600 mg/m ³ (AGW)	WEL-STEL: 2(II) (AGW)	---
BMGV: ---	Other informations: ---	

Chemical name	Oil mist, mineral	Content % :
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WEL-TWA: 5 mg/m ³ (ACGIH)	WEL-STEL: 10 mg/m ³ (ACGIH)	---
BMGV: ---	Other informations: ---	

Chemical name	Baseoil - unspecified	Content % :
WEL-TWA: 300 mg/m ³ (AGW)	WEL-STEL: 2(II) (AGW)	---
BMGV: ---	Other informations: ---	

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit-Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage. ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction. If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable. Wash hands before breaks and at end of work. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothing and protective equipment before entering eating areas. Eye/face protection: With danger of contact with eyes. Tight fitting protective goggles with side protection (EN 166). Skin protection - Hand protection: Chemical resistant protective gloves (EN 374). If applicable Protective Neopren gloves (EN 374). Protective nitrile gloves (EN 374) Protective hand cream recommended. Skin protection - Other: Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments) Respiratory protection: Normally not necessary. If OES or MEL is exceeded. Filter A2 P2 (EN 14387), code colour brown, white At high concentrations: Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138) Observe wearing time limitations for respiratory protection equipment. Additional information on hand protection - No tests have been performed. Selection made for mixtures according to the best available knowledge and information on the ingredients. Selection of materials derived from glove manufacturer's indications. Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account. Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer. In the case of mixtures the resistance of glove materials cannot be calculated in advance so it has to be tested before use. The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.2 Environmental exposure controls

n.av.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information

Physical state:	Aerosol
Colour:	Brown, clear
Odour:	Characteristic
pH-value undiluted:	Not determined
Boiling point/boiling range (°C):	n.a.
Melting point/freezing point (°C):	Not determined
Flash Point: (°C):	n.a.
Oxidising properties:	No
Vapour pressure:	Not determined
Density (g/ml):	0,83 (20°C)
Water solubility:	Insoluble
Viscosity:	14,7 mm ² /sec (40°C)

* Naphtha (petroleum), hydrodesulfurized heavy

10. STABILITY AND REACTIVITY

Conditions to avoid:

See point 7

Stable when handled and stored correctly. Heating, open flame, ignition sources, pressure increase will result in danger of bursting.

Materials to avoid:

See point 7

Avoid contact with strong oxidizing agents.

Hazardous decomposition products:

See point 5.3

No decomposition when used as directed.

11. TOXICOLOGICAL INFORMATION

Acute toxicity and immediate effects

Ingestion, LD50 rat oral (mg/kg):	n.av.
Inhalation, LC50 rat inhal. (mg/l/4h):	n.av.
Skin contact, LD50 rat dermal (mg/kg):	See point 15
Eye contact:	n.av.

Delayed and chronic effects

Sensitization:	Yes (skin contact)
Carcinogenicity:	n.c.
Mutagenicity:	n.c.
Reproductive toxicity:	n.c.
Narcosis:	n.c.

Further information

The product was not tested. Classification according to calculation procedure. The following may occur: Irritation of the respiratory tract Coughing Headaches Dizziness Effect on the central nervous system With long-term contact: Drying of the skin. Dermatitis (skin inflammation) Ingestion: Nausea Vomiting Danger of aspiration Oedema of the lungs Chemical pneumonitis (condition similar to pneumonia) Other dangerous properties cannot be ruled out.

12. ECOLOGICAL INFORMATION-ENVIRONMENTAL TOXICITY

The product was not tested.

Persistence and degradability:

Biodegradable *

Photochemical decomposition in the atmosphere.*

Behaviour in sewage plants: Isolate as much as possible with an oil separator.

According to the recipe, contains no AOX.

Aquatic toxicity: n.av.

Ecological toxicity: n.av.

Mobility: n.av.

Accumulation: n.av.

Results of PBT assessment n.av.

Other adverse effects: n.av.

* Naphtha (petroleum), hydrotreated heavy

** Alkanes, C10-13-iso

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

For the material / mixture / residue

EC disposal code no:

The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC) 16 05 04 gases in pressure containers (including halons) containing dangerous substances. Recommendation: Pay attention to local and national official regulations, e.g. suitable incineration plant. Approved rubbish dump for special refuse.

For contaminated packing material

Pay attention to local and national official regulations Recommendation: Return to manufacturer with residual pressure. Do not perforate, cut up or weld uncleaned container. 15 01 04 metallic packaging.

14. TRANSPORT INFORMATION

General statements

UN-Number: 1950

2.1/-(class/packing group)

F-D, S-U



Road/ Rail-transport (ADR/RID)

Class/packing group: 2/-

UN 1950 AEROSOLS

Classification code: 5F

LQ (ADR 2009): 2

Tunnel restriction code: D

Transport by sea

IMDG-code:	2.1/- (class/packing group)
EmS:	F-D, S-U
AEROSOLS:	
Transport by air	
IATA:	2.1/-/- (class/secondary danger/packing group)
Aerosols, flammable	
Additional information:	
Danger code and packing code on request.	

15.REGULATORY INFORMATION

Classification according to Dangerous Product Regulations incl. EC Directives (67/548/EEC and 1999/45/EC)

Symbols: F+/Xi

Indications of danger:

Extremely flammable

Irritant

R-phrases:

43 May cause sensitization by skin contact.

66 Repeated exposure may cause skin dryness or cracking.

S-phrases:

23 Do not breathe spray.

24 Avoid contact with skin.

35 This material and its container must be disposed of in a safe way.

37 Wear suitable gloves.

51 Use only in well-ventilated areas.

Additions:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

Keep away from sources of ignition - No smoking.

Keep out of the reach of children.

Without adequate ventilation, formation of explosive mixtures may be possible.

Benzene, C9-13-alkyl derivs., distn. residues, sulfonated, calcium salts.

Observe restrictions: Yes

Observe youth employment law (German regulation).

Regulation (EC) No 1907/2006, Annex XVII.

VOC (1999/13/EC): ~ 56% w/w

16. OTHER INFORMATION

These details refer to the product as it is delivered.

Revised sections: 3, 8

The following phrases represent the prescribed R-phrases / H-phrases (GHS/CLP) for the ingredients (designated in point 3).

65 Harmful: may cause lung damage if swallowed.

66 Repeated exposure may cause skin dryness or cracking.

53 May cause long-term adverse effects in the aquatic environment.

43 May cause sensitization by skin contact.

Legend

These details refer to the product as it is delivered.

Revised points: 2, 3, 4, 8, 9, 11, 12, 15, 16

The following phrases represent the prescribed R-phrases / H-phrases (GHS/CLP) for the ingredients (designated in point 3).

11 Highly flammable.

36 Irritating to eyes.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

64 May cause harm to breastfed babies.

50 Very toxic to aquatic organisms.

53 May cause long-term adverse effects in the aquatic environment.

12 Extremely flammable.