

MITANOL Multifarm 10W-30

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

1.1. Product identifier

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

Use of the substance/mixture

Motor oil multigrade

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name: MITANOL GmbH
Street: Industriestraße 8
Place: D-49577 Ankum
Telephone: +49 (0)5462/7470-50
e-mail: info@mitanol.de
Internet: www.mitanol.de
Responsible Department: Produktsicherheit / Product Safety
sicherheitsdatenblatt@mitanol.de

Telefax: +49 (0)5462/7470-33

1.4. Emergency telephone

number: Gifftinformationszentrum Nord (Göttingen)

+49 (0)551/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Serious eye damage/eye irritation: Eye Irrit. 2
Hazard Statements:
Causes serious eye irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts

Signal word: Warning

Pictograms:



Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

Special labelling of certain mixtures

EUH208 Contains Sulfonic acids, petroleum, calcium salts. May produce an allergic reaction.

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2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Preparation of base oils and additives.

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
68442-22-8	Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts			1 - < = 2 %
	270-478-5		01-2119948548-22	
	Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 2; H315 H318 H411			
61789-86-4	Sulfonic acids, petroleum, calcium salts			0 - < = 0,2 %
	263-093-9		01-2119488992-18	
	Skin Sens. 1B; H317			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
68442-22-8	270-478-5	Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts	1 - < = 2 %
	dermal: LD50 = > 2002 mg/kg; oral: LD50 = > 2000 - < 5000 mg/kg		
61789-86-4	263-093-9	Sulfonic acids, petroleum, calcium salts	0 - < = 0,2 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 16000 mg/kg		

Further Information

This mixture contains no substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from the danger area and lay down.
Do not leave affected person unattended.
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Remove person to fresh air and keep comfortable for breathing.
In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.
Take off contaminated clothing and wash it before reuse.
In case of skin irritation, consult a physician.

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.

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After ingestion

Rinse mouth thoroughly with water.
Let water be drunk in little sips (dilution effect).
Do NOT induce vomiting.
In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

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

Use water spray jet to protect personnel and to cool endangered containers.
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

Formation of toxic gases is possible during heating or in case of fire.

In case of fire may be liberated:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂).
- Nitrogen oxides (NO_x)
- Pyrolysis products, toxic

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Use of protective clothing

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

Additional information

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 measures

Keep people at a distance and stay on the windward side.
Special danger of slipping by leaking/spilling product.

For non-emergency personnel

Wear protective gloves/protective clothing and eye/face protection.

6.2. Environmental precautions

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

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.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.
Remove from the water surface (e.g. skimming, sucking).

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

Avoid formation of oil dust.

Use personal protection equipment.

Do not put any product-impregnated cleaning rags into your trouser pockets.

Clear spills immediately.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Take precautionary measures against static discharges.

Keep away from sources of ignition - No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed and in a well-ventilated place.

Keep only in the original container. Store in a cool dry place. (Protect from moisture.)

Floors should be impervious, resistant to liquids and easy to clean.

Hints on joint storage

Do not store together with:

- Materials capable of ignition under almost all normal temperature conditions
- Explosives

7.3. Specific end use(s)

Motor oil multigrade

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
68442-22-8	Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts		
Worker DNEL, long-term	inhalation	systemic	8,05 mg/m ³
Worker DNEL, long-term	dermal	systemic	11,4 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	1,98 mg/m ³
Consumer DNEL, long-term	dermal	systemic	5,71 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,24 mg/kg bw/day
61789-86-4	Sulfonic acids, petroleum, calcium salts		
Consumer DNEL, long-term	inhalation	systemic	2,9 mg/m ³
Consumer DNEL, long-term	dermal	systemic	1,667 mg/kg bw/day
Consumer DNEL, long-term	dermal	local	0,513 mg/cm ²
Consumer DNEL, long-term	oral	systemic	0,833 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	11,75 mg/m ³
Worker DNEL, long-term	dermal	systemic	3,33 mg/kg bw/day
Worker DNEL, long-term	dermal	local	1,03 mg/cm ²

PNEC values

CAS No	Substance	
Environmental compartment	Value	
68442-22-8	Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts	
Freshwater	0,004 mg/l	
Freshwater (intermittent releases)	0,045 mg/l	
Marine water	0,0046 mg/l	
Freshwater sediment	0,045 mg/kg	
Marine sediment	0,005 mg/kg	
Secondary poisoning	10,67 mg/kg	
Micro-organisms in sewage treatment plants (STP)	100 mg/l	
Soil	0,007 mg/kg	
61789-86-4	Sulfonic acids, petroleum, calcium salts	
Freshwater	1 mg/l	
Freshwater (intermittent releases)	10 mg/l	
Marine water	1 mg/l	
Freshwater sediment	226000000 mg/kg	
Marine sediment	226000000 mg/kg	
Secondary poisoning	16,667 mg/kg	
Micro-organisms in sewage treatment plants (STP)	1000 mg/l	
Soil	271000000 mg/kg	

Additional advice on limit values

To date, no national critical limit values exist.

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8.2. Exposure controls



Appropriate engineering controls

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

Protective and hygiene measures

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and after work.

When using do not eat, drink, smoke, sniff.

Eye/face protection

During filling, metering, mixing and sampling must be used:

Wear eye/face protection. DIN EN 166

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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.

Recommended glove articles: EN ISO 374

Suitable material: NBR (Nitrile rubber)

Thickness of the glove material: 0,4 mm

Breakthrough times and swelling properties of the material must be taken into consideration. Breakthrough time: > 8h

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.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	brown	
Odour:	characteristic	
Odour threshold:	not determined	
pH-Value:		not determined

Changes in the physical state

Melting point:		not determined
Boiling point or initial boiling point and boiling range:		not determined
Pour point:		-36 °C
Flash point:		226 °C

Flammability

Solid/liquid:		not applicable
Gas:		not applicable

Explosive properties

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

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Lower explosion limits: not determined

Upper explosion limits: not determined

Self-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

The product is not: oxidising.

Vapour pressure: not determined

Density (at 15 °C): 0,869 g/cm³

Water solubility: not determined

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

Viscosity / dynamic: not determined

Viscosity / kinematic:
(at 40 °C) 75,5 mm²/s

Relative vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

The formation of combustible vapours is possible at temperatures above: Flash point

10.4. Conditions to avoid

Avoid: Thermal decomposition

10.5. Incompatible materials

Materials to avoid:

- Oxidising agent
- Reducing agent

10.6. Hazardous decomposition products

Hazardous combustion products:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂)
- Nitrogen oxides (NO_x)
- Pyrolysis products, toxic

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
68442-22-8	Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts				
	oral	LD50 > 2000 - < 5000 mg/kg	Rat	Study report (1983)	other: Section 1500.3 – Federal Hazardou
	dermal	LD50 > 2002 mg/kg	Rat	Study report (1985)	OECD Guideline 402
61789-86-4	Sulfonic acids, petroleum, calcium salts				
	oral	LD50 > 16000 mg/kg	Rat	Study report (1981)	other: Section 772 .112-21 CFR 40
	dermal	LD50 > 5000 mg/kg	Rabbit	Study report (1981)	OECD Guideline 402

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Contains Sulfonic acids, petroleum, calcium salts. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

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

The product contains less than 3% DMSO extract (method IP346). A classification as a carcinogen with R45 is deleted. (Note L)

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

12.1. Toxicity

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
68442-22-8	Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts					
	Acute fish toxicity	LL50 4,5 mg/l	96 h	Oncorhynchus mykiss	Study report (2005)	OECD Guideline 203
	Acute algae toxicity	ErC50 21 mg/l	72 h	Desmodesmus subspicatus	Study report	OECD Guideline 201
	Acute crustacea toxicity	EL50 23 mg/l	48 h	Daphnia magna	Study report (2005)	OECD Guideline 202
	Crustacea toxicity	NOEC 0,4 mg/l	21 d	Daphnia magna	Study report (2010)	OECD Guideline 211
	Acute bacteria toxicity	(> 10000 mg/l)	3 h	activated sludge of a domestic residential sewage	Study report (1994)	OECD Guideline 209
61789-86-4	Sulfonic acids, petroleum, calcium salts					
	Acute fish toxicity	LL50 > 10000 mg/l	96 h	Cyprinodon variegatus	Study report (1986)	OECD Guideline 203
	Acute algae toxicity	ErC50 > 1000 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1994)	EPA OTS 797.1050
	Acute crustacea toxicity	EC50 > 1000 mg/l	48 h	Daphnia magna	Study report (1993)	EPA OTS 797.1300
	Acute bacteria toxicity	(> 10000 mg/l)	3 h	activated sludge of a predominantly domestic sewage	Study report (1994)	OECD Guideline 209

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential
Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
68442-22-8	Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts	1,67
61789-86-4	Sulfonic acids, petroleum, calcium salts	> 4,46

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

No information available.

12.7. Other adverse effects

No information available.

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.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

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SECTION 14: Transport information

Land transport (ADR/RID)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

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

SECTION 16: Other information

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Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,10,11,12,13,15,16.

Abbreviations and acronyms

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 - IMDG: International Maritime Code for Dangerous Goods
 - IATA: International Air Transport Association
 - GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service
 - LC50: Lethal concentration, 50%
 - LD50: Lethal dose, 50%
 - CLP: Classification, labelling and Packaging
 - REACH: Registration, Evaluation and Authorization of Chemicals
 - GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
 - UN: United Nations
 - DNEL: Derived No Effect Level
 - DMEL: Derived Minimal Effect Level
 - PNEC: Predicted No Effect Concentration
 - ATE: Acute toxicity estimate
 - LL50: Lethal loading, 50%
 - EL50: Effect loading, 50%
 - EC50: Effective Concentration 50%
 - ErC50: Effective Concentration 50%, growth rate
 - NOEC: No Observed Effect Concentration
 - BCF: Bio-concentration factor
 - PBT: persistent, bioaccumulative, toxic
 - vPvB: very persistent, very bioaccumulative
 - RID: Regulations concerning the international carriage of dangerous goods by rail
 - ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
 - EmS: Emergency Schedules
 - MFAG: Medical First Aid Guide
 - ICAO: International Civil Aviation Organization
 - MARPOL: International Convention for the Prevention of Marine Pollution from Ships
 - IBC: Intermediate Bulk Container
 - SVHC: Substance of Very High Concern
- For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Eye Irrit. 2; H319	Calculation method

Relevant H and EUH statements (number and full text)

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H411 Toxic to aquatic life with long lasting effects.
- EUH208 Contains Sulfonic acids, petroleum, calcium salts. May produce an allergic reaction.

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

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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.)