

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

1.1. Product identifier

Mabanol Argon Truck Mono 20W-20

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

Use of the substance/mixture

motor oil

Uses advised against

none

1.3. Details of the supplier of the safety data sheet

Company name: Mabanol GmbH & Co. KG
Street: Admiralitätstraße 55
Place: D-20459 Hamburg
Responsible Department:
Telephone: +49 (0) 40 36809988

1.4. Emergency telephone: Giftinformationszentrale Göttingen
Telephone: 0551/1 92 40

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]:

Hazard categories:

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

Causes serious eye irritation.

2.2. Label elements

Signal word: Warning

Pictograms:



Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face 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.

2.3. Other hazards

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

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
	Mineral oil*			1 - < 5 %
	Asp. Tox. 1; H304			
68457-79-4	Phosphorodithionic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts			1 - < 5 %
	270-608-0		01-2119493628-22	
	Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 2; H315 H318 H411			
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zins salts			< 1 %
	283-392-8		01-2119493626-26	
	Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 2; H315 H318 H411			

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

Further Information

* The mineral oils contained can be described by one or more of the following numbers:

EC-no.: 265-157-1, 265-169-7, 265-158-7, 265-159-2

REACH-no.: 01-2119484627-25, 01-2119471299-27, 01-2119487077-29, 01-2119480132-48

Note L : The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

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

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). 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.

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

If swallowed or in the event of vomiting, risk of entering the lungs.

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

Sand. Foam. Carbon dioxide (CO₂). Extinguishing powder. In case of major fire and large quantities:
Water spray jet. Water mist.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Burning produces heavy smoke.

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂) Sulphur dioxide (SO₂)

Nitrogen oxides (NO_x)

5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment (refer to section 8). Avoid contact with skin, eyes and clothes.

Avoid formation of oil dust.

Ventilate affected area.

Special danger of slipping by leaking/spilling product.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

No information available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Wear suitable protective clothing. (See section 8.) Avoid contact with skin, eyes and clothes.

Avoid formation of oil dust.

Do not breathe aerosol.

Advice on protection against fire and explosion

Usual measures for fire prevention. Keep away from sources of ignition - No smoking.

Fire class B

Further information on handling

Do not breathe vapour/aerosol.

Avoid contact with skin and eyes.

Advices on general occupational hygiene: See section 8.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Only use containers specifically approved for the substance/product.

Advice on storage compatibility

Do not store together with: Gas. Explosives. Radioactive substances. Infectious substances

Further information on storage conditions

Temperature control required. Protect from light. Keep container tightly closed. Do not allow contact with air.

7.3. Specific end use(s)

refer to chapter 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
68457-79-4	Phosphorodithionic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts		
Worker DNEL, long-term	inhalation	systemic	8,13 mg/m ³

Additional advice on limit values

air limit values:
Possibility of exposure to Aerosol
Limit value = 5 mg/ m³ - Source: ACGIH

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation.

Protective and hygiene measures

Clean skin thoroughly after working.
Do not put any product-impregnated cleaning rags into your trouser pockets.

Eye/face protection

Safety goggles with side protection. In case of increased risk add protective face shield. DIN EN 166

Hand protection

Use safety gloves of following materials: NBR (nitrile) / neopren / viton (permeationslevel 5 - 6), Cat. II according to norm EN 388.

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.

Skin protection

Oil-resistant and hardly inflammable protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

Mabanol Argon Truck Mono 20W-20

-aerosol or mist formation
 -exceeding exposure limit values
 Suitable respiratory protection apparatus: Respiratory equipment in case of nebulosity or aerosol: Use a mask with a filter type A2, A2/P2 or ABEK.
 The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
 Colour: clear
 Odour: characteristic

Test method

pH-Value: No information available.

Changes in the physical state

Melting point: No information available.
 Initial boiling point and boiling range: No information available.
 Sublimation point: No information available.
 Softening point: No information available.
 Pour point: -30 °C ISO 3016
 Flash point: 245 °C DIN ISO 2592
 Sustaining combustion: No data available

Flammability

Solid: No information available.
 Gas: No information available.

Explosive properties

none

Lower explosion limits: No information available.
 Upper explosion limits: No information available.
 Ignition temperature: No information available.

Auto-ignition temperature

Solid: No information available.
 Gas: No information available.

Decomposition temperature: No information available.

Oxidizing properties

none

Vapour pressure: No information available.
 (at 20 °C)
 Vapour pressure: No information available.
 (at 50 °C)

Density (at 15 °C): 0,887 g/cm³ DIN 51757

Bulk density: No information available.

Water solubility: No information available.

Mabanol Argon Truck Mono 20W-20

Solubility in other solvents

No information available.

Partition coefficient:

No information available.

Viscosity / dynamic:

No information available.

Viscosity / kinematic:

69,5 mm²/s DIN EN ISO 3104

(at 40 °C)

Flow time:

No information available.

Vapour density:

No information available.

Evaporation rate:

No information available.

Solvent separation test:

No information available.

Solvent content:

No information available.

9.2. Other information

Solid content:

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable at ambient temperature.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Oxidising agent, strong

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No information available.

Acute toxicity

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

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
68457-79-4	Phosphorodithionic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts				
	oral	LD50	3600 mg/kg	Rat (OECD 401)	ECHA Dossier
	dermal	LD50	>20000 mg/kg	Rabbit (OECD 402)	ECHA Dossier
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zins salts				
	oral	LD50	3100 mg/kg	Rat (OECD 401)	ECHA Dossier
	dermal	LD50	>2000 mg/kg	Rabbit (OECD 402)	ECHA Dossier

Mabanol Argon Truck Mono 20W-20

Irritation and corrosivity

Causes serious eye irritation.

Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zins salts:

Specific concentration limit (SCL):

>=6,25% (Skin Irrit. 2)

> 12,5 % (Eye Dam. 1)

> 10% (Eye Irrit. 2)

Phosphorodithionic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts:

Specific concentration limit (SCL):

> 15% (Skin Irrit. 2)

> = 3 % (Eye Dam. 1)

Sensitising effects

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

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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.

Phosphorodithionic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts:

Chronic oral toxicity:

Method: - OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Exposure time: 28d

Species: Sprague-Dawley Rat

Results: NOAEL >= 160 mg/kg

literature information: ECHA Dossier

In vitro mutagenicity/genotoxicity :

Method:

-OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Result: negative.

literature information: ECHA Dossier

Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zins salts:

In vitro mutagenicity/genotoxicity: Ames test negative.

Aspiration hazard

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

Practical experience

Other observations

Frequent contact specially if dried out may cause skin and eye irritations.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name	Method	Dose	[h] [d]	Species	Source
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zins salts					
	Acute fish toxicity	LC50 mg/l	LL50: 4,5	96 h	Oncorhynchus mykiss (OECD 203)	ECHA Dossier

12.2. Persistence and degradability

The product is slightly soluble in water. It can be largely eliminated from the water by abiotic processes, e.g. mechanical separation.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
68457-79-4	Phosphorodithionic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts			
	OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C	1,5 %	28	ECHA Dossier
	Product is not easily biodegradable.			
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zins salts			
	OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C	1,5 %	28	ECHA Dossier
	Product is not easily biodegradable.			

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
68457-79-4	Phosphorodithionic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	0,69
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zins salts	0,56

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

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:

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)

Mabanol Argon Truck Mono 20W-20

- 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)

- 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

Informations for safe handling see chapter 7.
Informations for personal protective equipment see chapter 8.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not relevant

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): No information available.
2004/42/EC (VOC): No information available.

Additional information

Not subject to 96/82/EC (SEVESO II) , 2012/18/CE (SEVESO III)
Observe in addition any national regulations!

National regulatory information

Employment restrictions: Observe employment restrictions for young people.
Water contaminating class (D): 2 - water contaminating

Additional information

none

15.2 Chemical Safety Assessment

not applicable.

SECTION 16: Other information

Changes

Rev. : 1,0 - 05.05.2015
Rev. : 1,10 - 17.07.2015

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

CAS Chemical Abstracts Service
DNEL: Derived No Effect Level
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect level
NTP: National Toxicology Program
N/A: not applicable
OSHA: Concerning the International Transport of Dangerous Goods by Rail)
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
SARA: Superfund Amendments and Reauthorization Act
SVHC: substance of very high concern
TRGS Technische Regeln für Gefahrstoffe
TSCA: Toxic Substances Control Act
VOC: Volatile Organic Compounds
VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe
WGK: Wassergefährdungsklasse

Relevant H- and EUH-phrases (Number and full text)

- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H411 Toxic to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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