

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

1.1. Product identifier

Mabanol Krypton Eco (UTTO)

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

Use of the substance/mixture

Industrial uses
gear 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 Directive 67/548/EEC or 1999/45/EC

R phrases:
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

Hazard categories:
Serious eye damage/eye irritation: Eye Irrit. 2
Hazardous to the aquatic environment: Aquatic Chronic 3
Hazard Statements:
Causes serious eye irritation.
Harmful to aquatic life with long lasting effects.

Hazard Overview

Physical hazards: No risks worthy of mention.
health hazards: Causes serious eye irritation. May cause sensitisation especially in sensitive humans.
Environmental hazards: Harmful to aquatic life with long lasting effects.

2.2. Label elements

Signal word: Warning
Pictograms: GHS07



Hazard statements

H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

Mabanol Krypton Eco (UTTO)

| | |
|----------------|--|
| 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. |
| P501 | Dispose of contents/container to Dispose of waste according to applicable legislation.. |

Special labelling of certain mixtures

| | |
|--------|--|
| EUH208 | Contains C14-18 alpha-olefin epoxide, reaction with boric acid, triphenyl phosphite. May produce an allergic reaction. |
|--------|--|

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

| EC No | Chemical name | Quantity |
|------------------|--|-------------|
| CAS No | Classification according to Directive 67/548/EEC | |
| Index No | Classification according to Regulation (EC) No. 1272/2008 [CLP] | |
| REACH No | | |
| 265-159-2 | Baseoil - unspecified, Distillates (petroleum), solvent-dewaxed light paraffinic | 20 - < 25 % |
| 64742-56-9 | Xn - Harmful R65 | |
| 649-469-00-9 | Asp. Tox. 1; H304 | |
| 01-2119480132-48 | | |
| | Mineral Oil* | 1 - < 5 % |
| | Xn - Harmful R65 | |
| | Asp. Tox. 1; H304 | |
| | Benzene, polypropene derivatives, sulfonated, calcium salts | 1 - < 5 % |
| | Xi - Irritant R36 | |
| | Eye Irrit. 2; H319 | |
| 224-235-5 | zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) | 1 - < 5 % |
| 4259-15-8 | Xi - Irritant, N - Dangerous for the environment R41-51-53 | |
| | Eye Dam. 1, Aquatic Chronic 2; H318 H411 | |
| 01-2119493635-27 | | |
| | C14-18 alpha-olefin epoxide, reaction with boric acid | < 1 % |
| | R43 | |
| | Skin Sens. 1B; H317 | |
| 202-908-4 | triphenyl phosphite | < 1 % |
| 101-02-0 | Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R22-36/38-43-50-53 | |
| 015-105-00-7 | Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H302 H315 H319 H317 H400 H410 | |

Full text of R-, 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, 265-090-8, 276-738-4

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

Mabanol Krypton Eco (UTTO)

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 allergic symptoms, especially in the breathing area, seek medical advice immediately.

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) Phosphorus oxides

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

Mabanol Krypton Eco (UTTO)

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. If required, notify relevant authorities according to all applicable regulations.

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

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.
Contaminated work clothing should not be allowed out of the workplace.
Wash contaminated clothing before reuse.

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:

- 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: | <-45 °C ISO 3016 |
| Flash point: | 230 °C DIN ISO 2592 |

Mabanol Krypton Eco (UTTO)

| | |
|--------------------------------------|---|
| 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): | 0,880 g/cm ³ DIN 51757 |
| Bulk density: | No information available. |
| Water solubility: | No information available. |
| Solubility in other solvents | |
| No information available. | |
| Partition coefficient: | No information available. |
| Viscosity / dynamic: | No information available. |
| Viscosity / kinematic: | 67,9 mm ² /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. |
| <u>9.2. Other information</u> | |
| 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.

Mabanol Krypton Eco (UTTO)

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 |
| 64742-56-9 | Baseoil - unspecified, Distillates (petroleum), solvent-dewaxed light paraffinic | | | | |
| | oral | LD50 | >5000 mg/kg | Rat. | ECHA Dossier |
| | dermal | LD50 | >5000 mg/kg | Rabbit. | ECHA Dossier |
| | inhalative (4 h) aerosol | LC50 | >5,53 mg/l | Rat. | ECHA Dossier |
| 4259-15-8 | zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) | | | | |
| | oral | LD50 | > 3100 mg/kg | Rat. | ECHA Dossier |
| | dermal | LD50 | > 5000 mg/kg | Rabbit. | ECHA Dossier |
| 101-02-0 | triphenyl phosphite | | | | |
| | oral | ATE | 500 mg/kg | | |
| | dermal | LD50 | >2000<5000 mg/kg | Rabbit (OECD 402) | ECHA Dossier |
| | inhalative (1 h) aerosol | LC50 | >6,7 mg/l | Rat (OECD 403) | ECHA Dossier |

Irritation and corrosivity

Causes serious eye irritation.

Sensitising effects

Based on available data, the classification criteria are not met.
May cause sensitisation especially in sensitive humans.

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

Mabanol Krypton Eco (UTTO)

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

Baseoil - unspecified, Distillates (petroleum), solvent-dewaxed light paraffinic:

Subchronic oral toxicity:

Exposure time: 90d

Species: Sprague-Dawley Rat.

Method: OECD Guideline 408

Result: LOAEL = 125 mg/kg

literature information: ECHA Dossier

Subacute inhalative toxicity :

Exposure time: 28d

Species: Sprague-Dawley Rat.

Result: NOAEC > 980 mg/m³

literature information: ECHA Dossier

Subacute dermal toxicity :

Exposure time: 28d

Species: Rabbit

Method: OECD Guideline 410

Result: NOAEL 1000 mg/kg

literature information: ECHA Dossier

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

Subacute oral toxicity:

Method: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

Species: Rat

Results: NOAEL = 125 mg/kg

literature information: ECHA Dossier

Carcinogenic/mutagenic/toxic effects for reproduction

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

Baseoil - unspecified, Distillates (petroleum), solvent-dewaxed light paraffinic:

In vitro mutagenicity/genotoxicity:

Method:

-OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

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

-OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Result: = negative.

literature information: ECHA Dossier

Carcinogenicity:

Exposure time: ~546 d

Species: Mouse.

Method: OECD Guideline 451

Result: Carcinogenicity = negative.

literature information: ECHA Dossier

Reproductive toxicity: :

Exposure route: oral.

Species: Rat.

Method: OECD Guideline 421

Result: NOAEL >1000 mg/kg

literature information: ECHA Dossier

Developmental toxicity/teratogenicity :

Exposure route: dermal.

Species: Rat.

Method: OECD Guideline 414

Result: NOAEL >2000 mg/kg

literature information: ECHA Dossier

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

In vitro mutagenicity/genotoxicity:

Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Result: negative.

literature information: ECHA dossier

Developmental toxicity/teratogenicity/Reproductive toxicity:

Species: Rat (Sprague-Dawley)

Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

Results: NOAEL = 30 mg/kg

literature information: ECHA Dossier

triphenyl phosphite:

In vitro mutagenicity/genotoxicity:

Method:

-other: DNA repair-suspension assay

-OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Result: = negative.

Reproductive toxicity: :

Exposure route: oral Exposure

time: 16 weeks Species:

Sprague-Dawley Rat. Method:

OECD Guideline 422

Result: NOAEL = 40 mg/kg

Developmental toxicity/teratogenicity :
 Exposure route: oral Exposure
 time: 16 weeks Species:
 Sprague-Dawley Rat. Method:
 OECD Guideline 422
 Result: NOAEL = 40 mg/kg
 literature information: ECHA Dossier

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 | | | | | |
|------------|--|--------|-------------|-----------|--------------------------------|--------------|
| | Aquatic toxicity | Method | Dose | [h] [d] | Species | Source |
| 64742-56-9 | Baseoil - unspecified, Distillates (petroleum), solvent-dewaxed light paraffinic | | | | | |
| | Acute fish toxicity | LC50 | >100 mg/l | 96 h | Pimephales promelas | ECHA Dossier |
| | Acute algae toxicity | ErC50 | >100 mg/l | 72 h | Pseudokirchnerella subcapitata | ECHA Dossier |
| | Acute crustacea toxicity | EC50 | >10000 mg/l | 48 h | Daphnia magna | ECHA Dossier |
| | Crustacea toxicity | NOEC | 10 mg/l | 21 d | Daphnia magna | ECHA Dossier |
| 4259-15-8 | zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) | | | | | |
| | Acute fish toxicity | LC50 | 46 mg/l | 96 h | Cyprinodon variegatus | ECHA Dossier |
| | Acute algae toxicity | ErC50 | >240 mg/l | 72 h | Pseudomonas putida | MSDS extern. |
| | Acute crustacea toxicity | EC50 | >2-10 mg/l | 48 h | Daphnia magna | MSDS extern. |

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 | | | |
| 64742-56-9 | Baseoil - unspecified, Distillates (petroleum), solvent-dewaxed light paraffinic | | | |
| | OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C | 2-4% | 28 | ECHA Dossier |
| | Not easily bio-degradable (according to OECD-criteria). | | | |
| 4259-15-8 | zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) | | | |
| | OECD 301D / EEC 92/69 annex V, C.4-E | < 5% | 27 | ECHA Dossier |
| | Product is biodegradable with difficulty. | | | |
| 101-02-0 | triphenyl phosphite | | | |
| | OECD 301D / EEC 92/69 annex V, C.4-E | 0,14 % | 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 |
|-----------|--|---------|
| 4259-15-8 | zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) | 3,59 |
| 101-02-0 | triphenyl phosphite | 6,62 |

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)

| | |
|--|--|
| 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. |

Mabanol Krypton Eco (UTTO)

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

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 - 28.04.2015

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 R-phrases (Number and full text)

- 22 Harmful if swallowed.
- 36 Irritating to eyes.
- 36/38 Irritating to eyes and skin.
- 41 Risk of serious damage to eyes.
- 43 May cause sensitisation by skin contact.
- 50 Very toxic to aquatic organisms.
- 51 Toxic to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.
- 65 Harmful: may cause lung damage if swallowed.

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

- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- EUH208 Contains C14-18 alpha-olefin epoxide, reaction with boric acid, triphenyl phosphite. May produce an allergic reaction.

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.)