

# SAFETY DATA SHEET

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: **METABOND 4T engine oil additive**

Version: 3

Date of revision: 09. 12. 2022

Previous version: 12. 03. 2019

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

### 1.1 Product identifier:

**METABOND 4T engine oil additive**

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

Relevant identified uses: additive for four stroke engines of MC-s, small garden tools to breed metal surface, to improve lubrication and friction-reducing effect.

Uses advised against: application other than the above.

### 1.3 Details of the supplier of the safety data sheet:

Data of supplier:

Metabond Magyarország Kft.  
9030 Győr, Szigligeti Ede u. 5.  
Tel: +36 96 332738  
Mobile: +36 70 2719575  
www.metabond.hu

Responsible for SDS:

Metabond Magyarország Kft.  
9030 Győr, Szigligeti Ede u. 5.  
Tel: +36 96 332738  
Mobile: +36 70 2719575  
E-mail: metabond@metabond.hu  
www.metabond.hu

### 1.4 Emergency telephone number

Emergency telephone (on workdays: 08-16 h (CET)): +36 96 332738

Health Toxicological Information Service (ETTSZ 1097 Budapest, Albert Flórián st. 2-6.)

Tel.: +36 80 201 199 (0-24 h, free number, can only be called from Hungary).

+36 1 476 6464 (0-24 h, can be called for a normal fee - also from abroad)

## SECTION 2 Hazards identification

### 2.1 Classification of the substance or mixture

Hazard Class and Category: Hazard statement:

Skin Irrit. 2 H315 Causes skin irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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## 2.2 Label elements

Product identification: Trade name: **METABOND 4T engine oil additive**

Hazardous components: -

GHS Pictogram:



Signal word: **Warning**

Hazard statement:

**H315** Causes skin irritation.

**H412** Harmful to aquatic life with long lasting effects.

Supplemental hazard information:

-

Precautionary statements – General:

**P101** If medical advice is needed, have product container or label at hand.

**P102** Keep out of the reach of children.

Precautionary statements – Prevention:

**P273** Avoid release to the environment.

Precautionary statements – Response:

**P302 + P352** IF ON SKIN: Wash with plenty of water and soap.

Precautionary statements – Storage:

-

Precautionary statements – Disposal:

**P501** Dispose of contents/container in accordance with national regulation.

Other liabilities for labelling:

Tactile warning of danger: Not required.

Transport classification: see section 14.

## 2.3 Other hazards

The product does not contain any PBT or vPvB substance according to annex XIII of regulation (EC) 1907/2006, at a concentration of 0.1% or more.

The mixture does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.

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## SECTION 3 Composition/information on ingredients

### 3.2 Mixtures

Chemical description: High refining grade mineral oil, with additives.

Component(s) / Hazardous component(s):

Name	EC number	CAS number	Hazard classes and cat.	Hazard statements	Conc. %(m/m)
Mineral oil * REACH Registr. Nr.: no data	-	-	Asp. Tox. 1	H304	max. 30
4,4'-methylene bis (dibutylthiocarbamate) REACH Registr. Nr.: 01-2119969655-20	233-593-1	10254-57-6	Aquatic Chronic 4	H413	max. 15
Phosphorodithioic acid, mixed O,O-bis(1,3- dimethylbutyl and iso-Pr) esters, zinc salts** REACH Registr. Nr.: 01-2119493626-26	283-392-8	84605-29-8	Skin Irrit. 2 Eye Dam. 1 Aquatic Chronic 2	H315 H318 H411	max. 11
Calcium branched alkyl phenate sulphide (overbased) REACH Registr. Nr.: no data	-	polymer	Aquatic Chronic 4	H413	max. 3,0
Phenol, dodecyl-, branched REACH Registr. Nr.: 01-2119513207-49	310-154-3	-	Eye Dam. 1 Skin Corr. 1C Repr. 1B Aquatic Acute 1 Aquatic Chronic 1	H318 H314 H360F H400 (M=10) H410 (M=10)	<0,06

\* Contains one or more of the following substances:

EC number: 265-157-1, REACH Registr. Nr.: 01-2119484627-25;

EC number: 265-169-7, REACH Registr. Nr.: 01-2119471299-27;

EC number: 265-158-7, REACH Registr. Nr.: 01-2119487077-29;

EC number: 265-159-2, REACH Registr. Nr.: 01-2119480132-48.

\*\* Specific concentration limit:

Eye Dam. 1; H318: C>12,5; Skin Irrit. 2; H315: C>6,25

The full text of each relevant H- phrase and Hazard classes and cat. see in Section 16.

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## SECTION 4 First aid measures

### 4.1 Description of first aid measures

General information: Never give anything by mouth to an unconscious person, or never induce vomiting.

Inhalation: Remove the affected person to fresh air. In case of a complaint, get medical attention.

Skin contact: Remove contaminated clothing. Wash skin with large amounts of water, use soap. In case of a complaint (irritation, redness), get medical attention.

Eye contact: Flush eyes with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

Ingestion: **Do not** induce vomiting (danger of aspiration). Rinse the mouth with water. Get medical attention. Show the MSDS to the physician.

Protection of first-aid person: No individual specifications.

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

Skin: irritation, drying of the skin, oil acne, dermatitis.

Symptoms may be delayed for several hours.

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

Treat symptomatically.

## SECTION 5 Fire-fighting measures

Fire hazards:

Combustible.

### 5.1 Extinguishing media

Suitable extinguishing media:

carbon dioxide, dry chemical powder, foam, water fog (trained personnel only)

Unsuitable extinguishing media:

Full water jet.

### 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products:

On burning, carbon monoxide, carbon dioxide, sulphur oxide, phosphor oxides, zinc oxide, various hydrocarbons and soot can be formed.

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## 5.3 Advice for fire-fighters

Special protective equipment:

According to the existing fire-fighting regulations. Self-contained breathing apparatus.

Further information:

In case of fire, keep containers cool with water spray.

Collect contaminated fire-fighting water separately. It must not enter the sewage system.

Contaminated extinguishing water must be disposed of in accordance with official regulations.

## SECTION 6 Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: see Section 8.

Sufficient ventilation should be provided to avoid oil vapour formation.

All kind of ignition sources should be removed. Do not smoke.

Avoid dust formation with solid or powdery products.

Danger of slipping on leaked out/spilled product.

Avoid contact with skin and eyes, inhalation of vapours.

### 6.2 Environmental precautions:

Confine spills to prevent material from entering sewers, watercourses, drains and into soil

Notify relevant authority.

### 6.3 Methods and material for containment and cleaning up

On soil: Stop leak if you can do so without risk. All kind of ignition sources should be removed. Recover free liquid by pumping. Contain the rest or small quantities with universal binder, sand, diatomaceous earth. Dispose of according to local regulations.

On water: Notify local authorities according to regulations.

### 6.4 Reference to other sections

Personal precautions: see section 8.

Waste treatment methods: see section 13.

## SECTION 7 Handling and storage

### 7.1 Precautions for safe handling

Keep general measures applied for normal operations with chemicals, and flammable liquids.

Sufficient ventilation should be provided.

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All kind of ignition sources should be removed. Do not smoke. Do not heat near the flash point.

Avoid splashing the product.

Avoid contact with skin and eyes. Avoid prolonged breathing of vapours.

Do not keep lubricant contaminated rags in trouser pockets.

Wash hands before breaks and at end of work.

Take off contaminated clothing and wash it before reuse.

When using do not eat, drink or smoke.

Food-storage is prohibited in work-room.

Handling temperature: no data.

## 7.2 Conditions for safe storage, including any incompatibilities

Storage facilities must comply with regulations for storing of flammable liquids.

Store in dry, well-ventilated place in original, closed containers.

Keep away from radiant heat, open flame, ignition sources, direct sunshine and strong oxidizing agents.

The floor of the storage room should be solvent resistant.

Storage temperature: no data.

## 7.3 Specific end use(s)

Additive for four stroke engines of MC-s, small garden tools to breed metal surface, to improve lubrication and friction-reducing effect.

## SECTION 8 Exposure controls / personal protection

### 8.1 Control parameters:

**Mineral oil mist:** TWA: **5 mg/m<sup>3</sup>**; STEL: 10 mg/m<sup>3</sup>, for oil mist, vapour excluded (ACGIH).

Method of testing, recommended: NIOSH 5026

### 8.2 Exposure controls

Engineering control measures:

Adequate ventilation (general or local exhaust).

Personal protection:

(a) Eye/face protection Where splashing is possible, wear tightly fitting safety glasses with side-shields (EN 166).

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(b) Skin protection

(i) Hand protection

Oil resistant gloves (EN 374).

Breakthrough time: 480 min.

The recommended maximum wearing time is 50% of breakthrough time.

Protective hand cream recommended.

Note: Manufacturer's directions for use and the conditions of application should be observed.

(ii) Other

Working garments. For work with large quantities: protective clothing, safety footwear (EN ISO 20345)

(c) Respiratory protection

Under normal conditions not required. In case of exceeded exposure-limits respiratory protection with particle-filter (A2, P2) is recommended (EN 14387).

Observe wearing time limitations for respiratory protection equipment.

(d) Thermal hazards

No data.

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.

## SECTION 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Physical state:

liquid

b) Colour:

brown, bright

c) Odour:

characteristic, not unpleasant

d) Melting point/freezing point (Pour point):

not available

e) Boiling point or initial boiling point and boiling range:

not available

f) Flammability:

combustible

g) Lower and upper explosion limit:

not explosive

h) Flash point (COC) (EN ISO 2592):

> 150°C

i) Auto-ignition temperature:

not available

j) Decomposition temperature:

not available

k) pH:

not applicable

l) Kinematic viscosity at:

40°C:

typ. 70.05 mm<sup>2</sup>/s

100°C

typ. 10.50 mm<sup>2</sup>/s

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m) Solubility

Solubility in water:

practically insoluble in water

Solubility in other solvents:

gasoline, kerosene, toluene, etc.

n) Partition coefficient n-octanol/water (log value):

not available

o) Vapour pressure at 20°C:

negligible

p) Density and/or relative density:

not available

q) Relative vapour density:

not available

r) Particle characteristics:

not available

9.2 Other information

no data available

## SECTION 10 Stability and reactivity

10.1 Reactivity:

Dangerous reactivity not known.

10.2 Chemical stability:

No decomposition if stored and handled properly.

10.3 Possibility of hazardous reactions:

Not known.

10.4 Conditions to avoid:

Direct heat or ignition sources, humidity.

10.5 Incompatible materials:

Strong oxidizing agents.

10.6 Hazardous decomposition products:

No dangerous decomposition products are formed under normal conditions. Hazardous combustion products: See Section 5.

## 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.

Components:

*4,4'-methylene bis (dibutyldithiocarbamate)* (CAS: 10254-57-6):

Oral: LD<sub>50</sub> (rat) > 2 000 mg/kg

Dermal: LD<sub>50</sub> (rabbit) 16 000 mg/kg

Skin corrosion/irritation: Causes skin irritation.

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

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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



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

## 11.2 Information on other hazards

The mixture does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.

## SECTION 12 Ecological information

### 12.1 Toxicity

Harmful to aquatic life with long lasting effects.

#### Components:

*4,4'-methylene bis (dibutyldithiocarbamate) (CAS: 10254-57-6):*

Algae:	EC <sub>50</sub>	> 0.0325 mg/l	72 h
Acute (Daphnia):	EC <sub>50</sub>	> 0.052 mg/l	48 h
Acute (Microorganisms):	EC <sub>50</sub>	> 1 000 mg/l	3 h
Acute (Fish):	LC <sub>50</sub>	> 0.06 mg/l	96 h
Acute (Algae):	NOEC	0.0325 mg/l	72 h
Acute (Daphnia):	NOEC	0.052 mg/l	48 h
Acute (Fish):	NOEC	0.06 mg/l	96 h
Acute (Microorganisms):	NOEC	1 000 mg/l	3 h
Chronic (Daphnia):	NOEC	0.247 mg/l	21 days

*Mineral oil (CAS: -):*

Fish (Fat-headed carp):	LC <sub>50</sub>	> 100 mg/l	96 h
Daphnia magna:	EC <sub>50</sub>	> 10 000 mg/l	48 h
Daphnia magna:	EC <sub>50</sub>	> 10 mg/l	21 days
Daphnia magna:	NOEC	> 10 mg/l	21 days
Algae (Scenedesmus quadricauda):	EC <sub>50</sub>	> 100 mg/l	72 h

*Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (CAS: 84605-29-8)*

Fishes (Oncorhynchus mykiss):	LC <sub>50</sub>	4.5 mg/L	96 h
Fishes (Mutton-headed carp):	LC <sub>50</sub>	46 mg/L	96 h
Fishes (Oncorhynchus mykiss):	NOEC	1.8 mg/L	96 h
Daphnia:	EC <sub>50</sub>	23 mg/L	48 h
Daphnia:	EC <sub>50</sub>	> 0.8 mg/L	21 days

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Daphnia:	NOEC	10 mg/L	48 h
Daphnia:	NOEC	0.4 mg/L	21 days
Green algae:	EC <sub>50</sub>	21 mg/L	72 h
Green algae:	NOEC	10 mg/L	72 h

*Calcium branched-chain alkylphenate sulphide (CAS: -):*

Fish (Fat-headed carp):	LC <sub>50</sub>	> 1 000 mg/l	96 h
Daphnia magna:	EC <sub>50</sub>	> 1 000 mg/l	48 h
Algae ( <i>Selenastrum capricornutum</i> ):	EC <sub>50</sub>	> 1 000 mg/l	96 h
Microorganisms:	EC <sub>50</sub>	> 1 000 mg/l	0,1 days

*Phenol, dodecyl-, branched (EC: 310-154-3):*

Fish (Fat-headed carp):	LC <sub>50</sub>	40 mg/l	96 h
Daphnia magna:	EC <sub>50</sub>	0.037 mg/l	48 h
Mysidopsis Bahia:	EC <sub>50</sub>	> 0.58 mg/l	96 h
Daphnia magna:	EC <sub>50</sub>	0.0079 mg/l	21 days
Daphnia magna:	NOEC	0.0037 mg/l	21 days
Algae ( <i>Scenedesmus quadricauda</i> ):	EC <sub>50</sub>	0.36 mg/l	72 h
Microorganisms:	EC <sub>50</sub>	> 1 000 mg/l	0,1 days

## 12.2 Persistence and degradability

Biodegradability: No data for the product.

*4,4'-methylene bis (dibutyldithiocarbamate)*

(CAS: 10254-57-6): 21% (28 days, OECD 301 B)

*Mineral oil (CAS: -):* 31% (28 days, OECD TG 301 B)

Not easily degradable.

*Phosphorodithioic acid, mixed O,O-bis(1,3-*

*dimethylbutyl and iso-Pr) esters, zinc salts* 1,5% (28 days, OECD TG 301 B)

(CAS: 84605-29-8): Not easily degradable.

*Calcium branched-chain alkylphenate sulphide* 4,7 - 10,8% (28 days, OECD TG 301 B)

(CAS: -): Not easily degradable.

Inherent sedimentation: 38,8 % (28 days)

*Phenol, dodecyl-, branched (EC: 310-154-3):* Mixed: 10% (56 days, OECD TG 301 B)

Not easily degradable.

25% (28 days, OECD TG 301 B)

Not easily degradable.

## 12.3 Bioaccumulative potential

No data for the product.

*4,4'-methylene bis (dibutyldithiocarbamate)*

(CAS: 10254-57-6): Log Pow: 8,42

BCF: 10,86 (low potential)

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*Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (CAS: 84605-29-8):*

Log Kow: 0,56 (measured value)

*Calcium branched-chain alkylphenate sulphide (CAS: -):*

BCF: 2,2

*Phenol, dodecyl-, branched (EC: 310-154-3):*

Log Kow: 11,08 (measured value)

BCF: 794,33 (measured value)

Log Kow: 7,14 (measured value)

12.4 Mobility in soil

No data.

Mobility in water:

Insoluble in water.

12.5 Results of PBT and vPvB assessment

Does not contain PBT and vPvB substances, at a concentration of 0.1% or more.

12.6 Endocrine disrupting properties

The mixture does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.

12.7 Other adverse effects

The product cannot be classified as an environmentally hazardous product based on test results.

Environmental effects:

Large spillages may be hazardous to the environment.

Water hazard class (German):

-

## SECTION 13 Disposal considerations

13.1 Waste treatment methods

Product disposal:

Wastes of the product or used oil should be treated as hazardous waste.

Waste Identification Code: 13 02 05\*

Mineral-based non-chlorinated engine, gear and lubricating oils.

Recommended waste treatment method: recycling or incineration. Do not discharge into sewers. Do not mix with household waste.

Packaging disposal:

Containers with product residue should also be treated as hazardous waste according to national and local disposal regulations.

Waste Identification Code: 15 01 10\*

Packaging containing residues of or contaminated by dangerous substances.

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Recommended waste treatment method: recycling or incineration. Do not reuse the container without cleaning.

Wastewater:

Quality of wastewater emitted to natural water must comply with national and local regulations.

Care should be taken in any case to ensure compliance with EC, national and local regulations. It is the responsibility of the user to know all relevant national and local regulations.

## SECTION 14 Transport information

Land transport:

Road/ Railway

ADR/RID:

Not classified.

14.1. UN number or ID number:

Not classified.

14.2. UN proper shipping name:

Not classified.

14.3. Transport hazard class(es):

Not classified.

14.4. Packing group:

Not classified.

14.5. Environmental hazards:

Not classified.

14.6. Special precautions for user:

Not classified.

Waterways:

Inland waterways/ Sea transport

ADN/IMDG:

Not apply to the product.

Air transport: ICAO / IATA:

Not apply to the product.

## SECTION 15 Regulatory information

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

This safety data sheet has been prepared according to Regulation (EC) No 1907/2006 (mod.: 2020/878/EU) and to Regulation (EC) 1272/2008.

Seveso category: Not classified.

15.2 Chemical safety assessment.

not available

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## SECTION 16 Other information

The information given in this data sheet is based on our best knowledge at the time of publication. The information is related only to this product and is intended to assist its safe transport, handling and use. The given physical and chemical parameters describe the product only for the purpose of safety requirements and therefore should not be construed as guaranteeing any specific property of the product or as being part of a product specification or any contract.

The manufacturer or supplier shall not take responsibility for any damages from the use other than recommended or other misuse of the product. It is the responsibility of the user to keep regulatory precautions and observe recommendations for safe use of the product.

Classification for mixtures and used evaluation method according to regulation 1272/2008/EC (CLP)

Skin Irrit. 2	H315	calculated method
Aquatic Chronic 3	H412	calculated method

*The full text of each relevant H- phrase and Hazard classes and cat. in Section 3.:*

H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H360F	May damage fertility.
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.
H413	May cause long lasting harmful effects to aquatic life.
Asp. Tox. 1	Aspiration hazard Category 1
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Repr. 1B	Reproductive toxicity Category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, Acute Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, Chronic Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, Chronic Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment, Chronic Category 4

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## Legend:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
BOD	Biological Oxygen Demand
Bw	Body Weight
C&L	Classification and Labelling
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging (1272/2008/EC)
CMR	Carcinogenic, Mutagenic or toxic to Reproduction
COD	Chemical Oxygen Demand
CSA	Chemical Safety Assessment
CSR	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
ECHA	European Chemicals Agency
Ec <sub>x</sub>	Effective Concentration x%
ErC <sub>50</sub>	EC <sub>50</sub> in terms of reduction of growth rate
Ed <sub>x</sub>	Effective Dose x%
EC	European Community
EC number	European Community number
ELINCS	European List of Notified Chemical Substances
ES	Exposure Scenario
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC <sub>x</sub>	Lethal Concentration x%
LD <sub>x</sub>	Lethal Dose x%
LOAEC	Lowest Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest Observed Effect Level
NOEC	No observed effect concentration
NOEL	No observed effect level
NLP	No-Longer Polymer
NOAEL	No Observed Adverse Effect Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	parts/million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International carriage of Dangerous Goods by Rail

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SVHC	Substance of Very High Concern
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bio-accumulative

## Revision Indicators:

Section	Subject of change	Date	Version
1-16	Full revision due to composition change Revision modification according to 2020/878/EU	09. 12. 2022	3