

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

1.1. Product identifier

Product form : Mixture
Trade name : RailArmor® EP 2
Product group : Mixtures

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

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Whitmore
930 Whitmore Drive
75087 Rockwall, Texas
USA
T 1.972.771.1000
Regulatory@whitmores.com - www.whitmores.com

Distributor

Whitmore Europe Limited
Unit 9
Foster Avenue, Woodside Park Industrial Estate
Dunstable, Bedfordshire, LU5 5TA
United Kingdom
T +44 1707 379870
Regulatory@whitmores.com - www.whitmores.com

1.4. Emergency telephone number

Emergency number : For Chemical Emergency Call CHEMTREC 24hr/day 7days/week
Within USA and Canada: 1.800.424.9300
Outside USA and Canada: +1.703.527.3887
(collect calls accepted)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	Only for healthcare professionals
United Kingdom	Chemtrec - United Kingdom	London	Local (City) +44 20 3807 3798	
United Kingdom	Chemtrec - United Kingdom		Local (National) +44 870 820 0418	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 2 H319
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning
Hazard statements (CLP) : H319 - Causes serious eye irritation.
Precautionary statements (CLP) : P264 - Wash hands, forearms and face 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.

RailArmor® EP 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
chalk (1317-65-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Bis(2-ethylhexyl) phosphorodithioate Zinc Salt (4259-15-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
graphite (7782-42-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
quartz, 1% \leq conc respirable crystalline silica<10% (14808-60-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates (petroleum), hydrotreated heavy naphthenic (Note L)	CAS-No.: 64742-52-5 EC-No.: 265-155-0 EC Index-No.: 649-465-00-7	42.750011	Not classified
Resin	CAS-No.: 64742-16-1 EC-No.: 265-116-8	2.82	Not classified
chalk substance with national workplace exposure limit(s) (GB)	CAS-No.: 1317-65-3 EC-No.: 215-279-6	> 1.787128	Not classified
Bis(2-ethylhexyl) phosphorodithioate Zinc Salt	CAS-No.: 4259-15-8 EC-No.: 224-235-5	≤ 1.175	Eye Dam. 1, H318 Aquatic Chronic 2, H411
graphite substance with national workplace exposure limit(s) (GB)	CAS-No.: 7782-42-5 EC-No.: 231-955-3	0.47	Aquatic Chronic 2, H411
POLYETHYLENE substance with national workplace exposure limit(s) (GB)	CAS-No.: 9002-88-4	0.3687	Not classified
quartz, 1% \leq conc respirable crystalline silica<10% substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 14808-60-7 EC-No.: 238-878-4	≤ 0.0376	Not classified
distillates (petroleum), hydrotreated heavy paraffinic (Note L)	CAS-No.: 64742-54-7 EC-No.: 265-157-1 EC Index-No.: 649-467-00-8		Not classified
naphtha, heavy aromatic (Note H)	CAS-No.: 64742-94-5 EC-No.: 265-198-5 EC Index-No.: 649-424-00-3		Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Note H : The classification and labelling shown for this substance applies to the hazardous property(ies) indicated by the hazard statement(s) in combination with the hazard class(es) and category(ies) shown. The requirements of Article 4 for manufacturers, importers or downstream users of this substance apply to all other hazard classes and categories. For hazard classes where the route of exposure or the nature of the effects leads to a differentiation of the classification of the hazard class, the manufacturer, importer or downstream user is required to consider the routes of exposure or the nature of the effects not already considered.

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.

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

RailArmor® EP 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

No additional 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 : Water spray. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Exercise caution. Spill area may be slippery.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Resin (64742-16-1)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	10 mg/m ³ 4 mg/m ³
chalk (1317-65-3)	
United Kingdom - Occupational Exposure Limits	
Local name	Calcium carbonate (Limestone, Marble)
WEL TWA (OEL TWA) [1]	10 mg/m ³ total inhalable 4 mg/m ³ respirable

RailArmor® EP 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

chalk (1317-65-3)	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Silica crystalline (Quartz)
IOEL TWA	0.05 mg/m³ (respirable dust)
Remark	(Year of adoption 2003)
Regulatory reference	SCOEL Recommendations
United Kingdom - Occupational Exposure Limits	
Local name	Silica
WEL TWA (OEL TWA) [1]	0.1 mg/m³ respirable crystalline
Regulatory reference	EH40/2005 (Third edition, 2018). HSE
POLYETHYLENE (9002-88-4)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	10 mg/m³ 4 mg/m³
graphite (7782-42-5)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	10 mg/m³ 4 mg/m³

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Wear eye protection

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Neoprene or nitrile rubber gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR), Neoprene rubber (HNBR)	2 (> 30 minutes)	0.3 mm - 0.6 mm		

RailArmor® EP 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.2.2.3. Respiratory protection

Respiratory protection:

No respiratory protection needed under normal use conditions

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Grey.
Appearance	: Grease.
Odour	: petroleum-like odour.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: 694 mm ² /s @ 40 °C
Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : < 0.1 %

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

RailArmor® EP 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Bis(2-ethylhexyl) phosphorodithioate Zinc Salt (4259-15-8)

LD50 oral rat	3100 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 14 day(s))
---------------	---

LD50 dermal rabbit	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
--------------------	--

chalk (1317-65-3)

LD50 oral rat	6450 mg/kg (Rat, Literature study, Oral)
---------------	--

LD50 dermal rabbit	> 2000 mg/kg
--------------------	--------------

POLYETHYLENE (9002-88-4)

LD50 oral rat	> 2000 mg/kg (Rat, Oral)
---------------	--------------------------

graphite (7782-42-5)

LD50 oral rat	> 2000 mg/kg (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
---------------	--

LC50 Inhalation - Rat	> 2000 mg/m ³ air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))
-----------------------	--

LC50 Inhalation - Rat (Dust/Mist)	> 2 mg/l Source: ECHA
-----------------------------------	-----------------------

distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
---------------	---

LD50 dermal rabbit	> 5000 mg/kg Source: IUCLID
--------------------	-----------------------------

LC50 Inhalation - Rat	> 25 mg/l/4h
-----------------------	--------------

naphtha,heavy aromatic (64742-94-5)

LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: other:EPA Fed Reg Vol 50, No. 188 1985 and as amended in Fed Reg Vol 52, No. 97, 1987
-----------------	--

LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: EPA OTS 798.1100 (Acute Dermal Toxicity)
--------------------	---

LD50 dermal	3160 mg/kg
-------------	------------

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

chalk (1317-65-3)

pH	8.5 – 9
----	---------

quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)

pH	5 – 8 (40 %, 20 °C)
----	---------------------

graphite (7782-42-5)

pH	7 (1.3 %)
----	-----------

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

RailArmor® EP 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

chalk (1317-65-3)	
pH	8.5 – 9
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
pH	5 – 8 (40 %, 20 °C)
graphite (7782-42-5)	
pH	7 (1.3 %)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
IARC group	1 - Carcinogenic to humans
POLYETHYLENE (9002-88-4)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
naphtha,heavy aromatic (64742-94-5)	
NOAEL (animal/male, F0/P)	35 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:OPPTS 870.3650 Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test
NOAEL (animal/female, F0/P)	125 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:OPPTS 870.3650 Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Bis(2-ethylhexyl) phosphorodithioate Zinc Salt (4259-15-8)	
NOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
graphite (7782-42-5)	
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.000279 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
naphtha,heavy aromatic (64742-94-5)	
LOAEC (inhalation, rat, vapour, 90 days)	4.71 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)
NOAEC (inhalation, rat, vapour, 90 days)	2.355 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
RailArmor® EP 2	
Viscosity, kinematic	694 mm²/s @ 40 °C
Bis(2-ethylhexyl) phosphorodithioate Zinc Salt (4259-15-8)	
Viscosity, kinematic	131.6 mm²/s (40 °C, ASTM D445: Capillary viscometer)
chalk (1317-65-3)	
Viscosity, kinematic	Not applicable

RailArmor® EP 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Viscosity, kinematic	1.99 – 847 mm²/s Temp.: '40°C' Parameter: 'mm²/smm2/s '

naphtha,heavy aromatic (64742-94-5)	
Viscosity, kinematic	2.67 mm²/s

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
Not rapidly degradable	

Bis(2-ethylhexyl) phosphorodithioate Zinc Salt (4259-15-8)	
LC50 - Fish [1]	46 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Cyprinodon variegatus, Semi-static system, Fresh water, Experimental value, GLP)
LC50 - Fish [2]	46 mg/l Test organisms (species):

chalk (1317-65-3)	
LC50 - Fish [1]	> 10000 mg/l (96 h, Oncorhynchus mykiss, Literature)
EC50 - Crustacea [1]	> 1000 mg/l (48 h, Daphnia magna, Literature)
EC50 72h - Algae [1]	> 200 mg/l (Desmodesmus subspicatus, Literature)

graphite (7782-42-5)	
LC50 - Fish [1]	> 100 mg/l
EC50 - Crustacea [1]	> 100 mg/l
EC50 72h - Algae [1]	19 mg/l
EC50 72h - Algae [2]	7.2 mg/l
ErC50 algae	> 100 mg/l
NOEC (chronic)	47 mg/l

distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LC50 - Fish [1]	> 5000 mg/l
EC50 - Crustacea [1]	> 1000 mg/l Source: IUCLID
EC50 96h - Algae [1]	> 1000 mg/l Source: IUCLID

naphtha,heavy aromatic (64742-94-5)	
LC50 - Fish [1]	6.1 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
LC50 - Fish [2]	0.58 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	0.95 mg/l
EC50 - Crustacea [2]	0.76 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

Bis(2-ethylhexyl) phosphorodithioate Zinc Salt (4259-15-8)	
Persistence and degradability	Not readily biodegradable in water.
Resin (64742-16-1)	
Persistence and degradability	Biodegradability in soil: no data available.

RailArmor® EP 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

chalk (1317-65-3)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

POLYETHYLENE (9002-88-4)	
Persistence and degradability	Not degradable in the soil. Not readily biodegradable in water.

12.3. Bioaccumulative potential

Bis(2-ethylhexyl) phosphorodithioate Zinc Salt (4259-15-8)	
Partition coefficient n-octanol/water (Log Pow)	3.59 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 22 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Resin (64742-16-1)	
Bioaccumulative potential	Bioaccumulation unlikely.

quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
Bioaccumulative potential	Bioaccumulation unlikely.

POLYETHYLENE (9002-88-4)	
Bioaccumulative potential	No bioaccumulation data available.

distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Partition coefficient n-octanol/water (Log Pow)	3.9 – 6 Source: IUCLID

naphtha, heavy aromatic (64742-94-5)	
Partition coefficient n-octanol/water (Log Pow)	2.9 – 6.1

12.4. Mobility in soil

Bis(2-ethylhexyl) phosphorodithioate Zinc Salt (4259-15-8)	
Surface tension	63.7 mN/m (21 °C, 1.25 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	Low potential for adsorption in soil.

chalk (1317-65-3)	
Ecology - soil	No (test) data on mobility of the substance available.

quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
Ecology - soil	Low potential for mobility in soil.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

RailArmor® EP 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

VOC Directive (2004/42)

VOC content : < 0.1 %

RailArmor® EP 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

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
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

RailArmor® EP 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H304	May be fatal if swallowed and enters airways.
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.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.