

AF DRIVE ANTIFOULING POUR EMBASE GRIS VOLVO - 1504095500



SAFETY DATA SHEET
(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : AF DRIVE ANTIFOULING POUR EMBASE GRIS VOLVO
Product code : 1504095500.
UFI : GCK0-N065-J004-QNVS

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

antifouling paint
PROFESSIONAL USE

1.3. Details of the supplier of the safety data sheet

Registered company name : SOROMAP PEINTURES VERNIS.
Address : 1, RUE MAURICE MALLET Z.I. DE BELIGON.17300.ROCHEFORT SUR MER.FRANCE.
Telephone : 05.46.88.36.10. Fax : 05.46.88.36.15.
contact@soromap.com
www.soromap.com

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Flammable liquid, Category 3 (Flam. Liq. 3, H226).
Acute inhalation toxicity, Category 4 (Acute Tox. 4, H332).
Skin irritation, Category 2 (Skin Irrit. 2, H315).
Serious eye damage, Category 1 (Eye Dam. 1, H318).
Skin sensitisation, Category 1 (Skin Sens. 1, H317).
Reproductive toxicity, Category 1B (Repr. 1B, H360D).
Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H335).
Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H336).
Specific target organ toxicity (repeated exposure), Category 2 (STOT RE 2, H373).
Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).
Hazardous to the aquatic environment - Chronic hazard, Category 1 (Aquatic Chronic 1, H410).

2.2. Label elements

Biocidal mixture (see section 15).

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS02



GHS05



GHS07



GHS08



GHS09

Signal Word :
DANGER

Product identifiers :

EC 918-668-5	HYDROCARBONS, C9, AROMATICS
EC 232-475-7	ROSIN, COLOPHONY
EC 236-671-3	PYRITHIONE ZINC
EC 264-843-8	4,5-DICHLORO-2-N-OCTYL-4-ISOTHIAZOL-3-ONE REACTION MASS OF FATTY ACIDS, TALL-OIL, COMPDS. WITH OLEYLAMINE AND FATTY ACIDS, C18-UNSATD., TRIMERS, COMPDS. WITH OLEYLAMINE

Additional labeling :

For professional use only.

Hazard statements :

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360D	May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure .
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/ ...

Precautionary statements - Response :

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.

Precautionary statements - Disposal :

P501	Dispose of contents/container by approved organization
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Other information :

Any losses or waste containing 4,5-Dichloro-2-octyl-2H-isothiazol-3-one shall be collected for reuse or disposal.

Application, maintenance and repair activities shall be conducted within a contained area, on impermeable hard standing with bunding or on soil covered with an impermeable material.

Children shall be kept away until treated surfaces are dry.

For professional use only.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances $\geq 0.1\%$ with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
EC: 918-668-5 REACH: 01-2119455851-35-xxxx HYDROCARBONS, C9, AROMATICS	GHS09, GHS07, GHS08, GHS02 Dgr Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335 STOT SE 3, H336 Aquatic Chronic 2, H411 EUH:066		10 <= x % < 25
CAS: 13463-67-7 EC: 236-675-5 REACH: 01-2119489379-17 DIOXYDE DE TITANE		[1]	10 <= x % < 25
CAS: 1314-13-2 EC: 215-222-5 ZINC OXIDE	GHS09 Wng Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1	[1]	10 <= x % < 25
CAS: 8050-09-7 EC: 232-475-7 REACH: 01-2119480418-32 ROSIN, COLOPHONY	GHS07 Wng Skin Sens. 1, H317	[1]	10 <= x % < 25
CAS: 1330-20-7 EC: 215-535-7 REACH: 01-2119488216-32 XYLENE	GHS07, GHS08, GHS02 Dgr Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 4, H332 STOT SE 3, H335 Aquatic Chronic 3, H412	C [1]	2.5 <= x % < 10
CAS: 13463-41-7 EC: 236-671-3 REACH: 01-2119511196-46 PYRITHIONE ZINC	GHS06, GHS05, GHS09, GHS08 Dgr Acute Tox. 3, H301 Eye Dam. 1, H318 Acute Tox. 2, H330 Repr. 1B, H360D STOT RE 1, H372 Aquatic Acute 1, H400 M Acute = 1000 Aquatic Chronic 1, H410 M Chronic = 10	[2]	2.5 <= x % < 10
CAS: 64359-81-5 EC: 264-843-8 4,5-DICHLORO-2-N-OCTYL-4-ISOTHIAZOL-3-ONE	GHS06, GHS05, GHS09 Dgr Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Acute Tox. 2, H330 STOT SE 3, H335 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 100		2.5 <= x % < 10

CAS: 7727-43-7 BARIUM SULFATE		[1]	1 ≤ x % < 2.5
CAS: 14807-96-6 EC: 238-877-9 TALC		[1]	1 ≤ x % < 2.5
CAS: 100-41-4 EC: 202-849-4 ETHYLBENZENE	GHS07, GHS08, GHS02 Dgr Flam. Liq. 2, H225 Asp. Tox. 1, H304 Acute Tox. 4, H332 STOT RE 2, H373 Aquatic Chronic 3, H412	[1]	0.1 ≤ x % < 1
REACH: 01-2120101675-63 REACTION MASS OF FATTY ACIDS, TALL-OIL, COMPDS. WITH OLEYLAMINE AND FATTY ACIDS, C18-UNSATD., TRIMERS, COMPDS. WITH OLEYLAMINE	GHS07, GHS08 Wng Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1A, H317 STOT RE 2, H373 Aquatic Chronic 3, H412		0.1 ≤ x % < 1
CAS: 1314-13-2 EC: 215-222-5 REACH: 01-2119463881-32-0005 ZINC OXIDE	GHS09 Wng Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1	[1]	0.1 ≤ x % < 1
INDEX: 607-035-00-6 CAS: 80-62-6 EC: 201-297-1 REACH: 01-2119452498-28 METHYL METHACRYLATE	GHS02, GHS07 Dgr Flam. Liq. 2, H225 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317	D [1]	0 ≥ x % < 0.05
CAS: 7631-86-9 EC: 231-545-4 REACH: 01-2119379499-16-0000 SILICA		[1]	0 ≥ x % < 0.03
CAS: 26530-20-1 EC: 247-761-7 2-OCTYL-2H-ISOTHIAZOL-3-ONE	GHS06, GHS05, GHS09 Dgr Acute Tox. 4, H302 Acute Tox. 3, H311 Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Acute Tox. 3, H331 Aquatic Acute 1, H400 M Acute = 10 Aquatic Chronic 1, H410 M Chronic = 10	[1]	0 ≥ x % < 0.001

Specific concentration limits:

Identification	Specific concentration limits	ATE
EC: 918-668-5 REACH: 01-2119455851-35-xxxx HYDROCARBONS, C9, AROMATICS		oral: ATE = 3592 mg/kg BW
CAS: 8050-09-7 EC: 232-475-7 REACH: 01-2119480418-32 ROSIN, COLOPHONY		oral: ATE = 2800 mg/kg BW

CAS: 13463-41-7 EC: 236-671-3 REACH: 01-2119511196-46 PYRITHIONE ZINC		inhalation: ATE = 0.14 mg/l 4h (dust/mist) oral: ATE = 221 mg/kg BW
CAS: 64359-81-5 EC: 264-843-8 4,5-DICHLORO-2-N-OCTYL-4-ISOTHIAZOL-3-ONE		inhalation: ATE = 0.26 mg/l 4h (dust/mist)
CAS: 26530-20-1 EC: 247-761-7 2-OCTYL-2H-ISOTHIAZOL-3-ONE	Skin Sens. 1: H317 C \geq 0.05%	

Information on ingredients :

(Full text of H-phrases: see section 16)

[1] Substance for which maximum workplace exposure limits are available.

[2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures**In the event of exposure by inhalation :**

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

Do not proceed with mouth-to-mouth or mouth-to-nose resuscitation. Use the appropriate equipment.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- halon
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO₂)

Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

Fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations (see section 13).

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

Avoid exposure to pregnant women and warn women of child-bearing age of the possible risks

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Remove contaminated clothing and protective equipment before entering eating areas.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

Fire prevention :

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Prevent the accumulation of electrostatic charges with connections to earth.

The mixture can become electrostatically charged: always ground when decanting. Wear antistatic shoes and clothing and make floors of non-conductive

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Avoid eye contact with this mixture at all times.

Avoid exposure - obtain special instructions before use.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

Never open the packages under pressure.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

Avoid accumulation of electrostatic charges.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- European Union (2019/1831, 2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :
1330-20-7	221	50	442	100	Peau
100-41-4	442	100	884	200	Peau
80-62-6	-	50	-	100	-

- Germany - AGW (BAuA - TRGS 900, 08/08/2019) :

CAS	VME :	VME :	Excess	Notes
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1330-20-7		100 ppm 440 mg/m ³		2(II)
100-41-4		20 ppm 88 mg/m ³		2(II)
80-62-6		50 ppm 210 mg/m ³		2(I)
7631-86-9		4E mg/m ³		
26530-20-1		0.05 E mg/m ³		2(I)

- France (INRS - ED984 / 2020-1546) :

CAS	VME-ppm :	VME-mg/m ³ :	VLE-ppm :	VLE-mg/m ³ :	Notes :	TMP No :
13463-67-7	-	10	-	-	-	-
1314-13-2	-	5	-	-	-	-
8050-09-7	-	0.1	-	-	-	65.66
1330-20-7	50	221	100	442	*	4 Bis. 84. *
100-41-4	20	88.4	100	442	*	84
1314-13-2	-	5	-	-	-	-
80-62-6	50	205	100	410	-	82

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
13463-67-7	4 mg/m ³				
8050-09-7	0.05 mg/m ³	0.15 mg/m ³		Sen	
1330-20-7	50 ppm 220 mg/m ³	100 ppm 441 mg/m ³		Sk. BMGV	
7727-43-7	4 mg/m ³				
14807-96-6	1 mg/m ³				
100-41-4	100 ppm 441 mg/m ³	125 ppm 552 mg/m ³		Sk	
80-62-6	50 ppm 208 mg/m ³	100 ppm 416 mg/m ³			

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

ZINC OXIDE (CAS: 1314-13-2)

Final use:

Exposure method:

Potential health effects:

DNEL :

Exposure method:

Potential health effects:

DNEL :

Final use:

Exposure method:

Potential health effects:

DNEL :

Exposure method:

Potential health effects:

DNEL :

Exposure method:

Potential health effects:

DNEL :

Workers.

Dermal contact.

Long term systemic effects.

83 µg/kg body weight/day

Inhalation.

Long term systemic effects.

5 mg of substance/m³

Consumers.

Ingestion.

Long term systemic effects.

0.83 mg/kg body weight/day

Dermal contact.

Long term systemic effects.

83 mg/kg body weight/day

Inhalation.

Long term systemic effects.

2.5 mg of substance/m³

REACTION MASS OF FATTY ACIDS, TALL-OIL, COMPDS. WITH OLEYLAMINE AND FATTY ACIDS, C18-UNSATD., TRIMERS, COMPDS. WITH OLEYLAMINE

Final use:

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:
DNEL :

Final use:

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Long term systemic effects.
0.43 mg/kg body weight/day

Inhalation.
Long term systemic effects.
0.75 mg of substance/m3

Consumers.

Ingestion.
Long term systemic effects.
0.11 mg/kg body weight/day

Dermal contact.
Long term systemic effects.
0.21 mg/kg body weight/day

Dermal contact.
Long term local effects.
0.0113 mg of substance/cm2

Inhalation.
Long term systemic effects.
0.37 mg of substance/m3

ETHYLBENZENE (CAS: 100-41-4)

Final use:

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:
DNEL :

Final use:

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Long term systemic effects.
180 µg/kg body weight/day

Inhalation.
Short term local effects.
293 mg of substance/m3

Inhalation.
Long term systemic effects.
77 mg of substance/m3

Consumers.

Ingestion.
Long term systemic effects.
1.6 mg/kg body weight/day

Inhalation.
Long term systemic effects.
15 mg of substance/m3

HYDROCARBONS, C9, AROMATICS

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Long term systemic effects.
25 mg/kg body weight/day

Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	150 mg of substance/m3

Final use:

Exposure method:	Consumers.
Potential health effects:	Dermal contact.
DNEL :	Long term systemic effects.
	11 mg/kg body weight/day

Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	32 mg of substance/m3

Predicted no effect concentration (PNEC):**ZINC OXIDE (CAS: 1314-13-2)**

Environmental compartment:	Soil.
PNEC :	35.6 mg/kg
Environmental compartment:	Fresh water.
PNEC :	20.6 µg/l
Environmental compartment:	Sea water.
PNEC :	6.1 µg/l
Environmental compartment:	Fresh water sediment.
PNEC :	117.8 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	56.5 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	52 µg/l

REACTION MASS OF FATTY ACIDS, TALL-OIL, COMPDS. WITH OLEYLAMINE AND FATTY ACIDS, C18-UNSATD., TRIMERS, COMPDS. WITH OLEYLAMINE

Environmental compartment:	Air.
PNEC :	0.0973 mg/l
Environmental compartment:	Fresh water.
PNEC :	0.194 mg/l
Environmental compartment:	Sea water.
PNEC :	0.0194 mg/l
Environmental compartment:	Waste water treatment plant.
PNEC :	100 mg/l

ETHYLBENZENE (CAS: 100-41-4)

Environmental compartment:	Soil.
PNEC :	2.68 mg/kg
Environmental compartment:	Fresh water.
PNEC :	0.1 mg/l
Environmental compartment:	Sea water.

PNEC : 0.01 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.1 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 13.7 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 9.6 mg/l

4,5-DICHLORO-2-N-OCTYL-4-ISOTHIAZOL-3-ONE (CAS: 64359-81-5)

Environmental compartment: Soil.
PNEC : 0.062 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.034 µg/l

Environmental compartment: Sea water.
PNEC : 0.0068 µg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.41 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.0034 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 0.064 mg/l

PYRITHIONE ZINC (CAS: 13463-41-7)

Environmental compartment: Fresh water.
PNEC : 0.00009 mg/l

Environmental compartment: Sea water.
PNEC : 0.00009 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.0095 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.0095 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 0.01 mg/l

XYLENE (CAS: 1330-20-7)

Environmental compartment: Soil.
PNEC : 2.31 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.327 mg/l

Environmental compartment: Sea water.
PNEC : 0.327 mg/l

Environmental compartment: PNEC :	Intermittent waste water. 0.327 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 12.46 mg/kg
Environmental compartment: PNEC :	Marine sediment. 12.46 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 6.58 mg/l

ZINC OXIDE (CAS: 1314-13-2)

Environmental compartment: PNEC :	Soil. 35.6 mg/kg
Environmental compartment: PNEC :	Fresh water. 20.6 µg/l
Environmental compartment: PNEC :	Sea water. 6.1 µg/l
Environmental compartment: PNEC :	Fresh water sediment. 117.8 mg/kg
Environmental compartment: PNEC :	Marine sediment. 56.5 mg/kg

DIOXYDE DE TITANE (CAS: 13463-67-7)

Environmental compartment: PNEC :	Fresh water. 0.127 mg/l
Environmental compartment: PNEC :	Sea water. 1 mg/l
Environmental compartment: PNEC :	Intermittent waste water. 0.61 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 1000 mg/kg
Environmental compartment: PNEC :	Marine sediment. 100 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 100

8.2. Exposure controls**Personal protection measures, such as personal protective equipment**

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- PVA (Polyvinyl alcohol)

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid inhaling vapors.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- A1 (Brown)

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties****Physical state**

Physical state :

Viscous liquid.

Colour

Unspecified

Odour

Odour threshold :

Not stated.

Melting point

Melting point/melting range :

Not specified.

Freezing point

Freezing point / Freezing range :

Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range :

Not specified.

Flammability

Flammability (solid, gas) :

Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) : Not stated.

Explosive properties, upper explosivity limit (%) : Not stated.

Flash point

Flash Point : 47.50 °C.

Auto-ignition temperature

Self-ignition temperature : Not specified.

Decomposition temperature

Decomposition point/decomposition range : Not specified.

pH

pH : Not relevant.

pH (aqueous solution) : Not stated.

Kinematic viscosity

Viscosity : Not stated.

Solubility

Water solubility : Insoluble.

Fat solubility : Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

Vapour pressure

Vapour pressure (50°C) : Below 110 kPa (1.10 bar).

Density and/or relative density

Density : 1.36

Relative vapour density

Vapour density : Not stated.

9.2. Other information

VOC (g/l) : 422.73

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY**10.1. Reactivity**

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- accumulation of electrostatic charges.
- heating
- heat
- flames and hot surfaces

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Harmful by inhalation.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

Respiratory tract irritation may occur, together with symptoms such as coughing, choking and breathing difficulties.

Narcotic effects may occur, such as drowsiness, narcosis, decreased alertness, loss of reflexes, lack of coordination or dizziness.

Effects may also occur in the form of violent headaches or nausea, judgement disorder, giddiness, irritability, fatigue or memory disturbance.

May cause an allergic reaction by skin contact.

Presumed human reproductive toxicant.

May damage the unborn child.

May cause severe damage to organs in the event of repeated or prolonged exposure.

11.1.1. Substances**Acute toxicity :**

4,5-DICHLORO-2-N-OCTYL-4-ISOTHIAZOL-3-ONE (CAS: 64359-81-5)

Inhalation route (Dusts/mist) :
LC50 = 0.26 mg/l
Species : Rat
Duration of exposure : 4 h

ZINC OXIDE (CAS: 1314-13-2)

Oral route :
LD50 > 15000 mg/kg
Species : Rat
OECD Guideline 401 (Acute Oral Toxicity)

Inhalation route (Dusts/mist) :
LC50 > 5.7 mg/l
Species : Rat

PYRITHIONE ZINC (CAS: 13463-41-7)

Oral route :
LD50 = 221 mg/kg
Species : Rat
OECD Guideline 401 (Acute Oral Toxicity)

Dermal route :
LD50 > 2000 mg/kg
Species : Rabbit

Inhalation route (Dusts/mist) :
LC50 = 0.14 mg/l
OECD Guideline 403 (Acute Inhalation Toxicity)
Duration of exposure : 4 h

ROSIN, COLOPHONY (CAS: 8050-09-7)

Oral route :

LD50 = 2800 mg/kg

Species : Rat

Dermal route :

LD50 > 2500 mg/kg

Species : Rabbit

DIOXYDE DE TITANE (CAS: 13463-67-7)

Oral route :

LD50 > 5000 mg/kg

Species : Rat

OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)

Dermal route :

LD50 > 2000 mg/kg

Inhalation route (Dusts/mist) :

LC50 > 4.26 mg/l

Species : Rat

OECD Guideline 403 (Acute Inhalation Toxicity)

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Oral route :

LD50 = 3592 mg/kg

Species : Rat

OECD Guideline 401 (Acute Oral Toxicity)

Dermal route :

LD50 > 3160 mg/kg

Species : Rabbit

OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/skin irritation :

ZINC OXIDE (CAS: 1314-13-2)

Species : Rabbit

OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

DIOXYDE DE TITANE (CAS: 13463-67-7)

Species : Rabbit

OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Respiratory or skin sensitisation :

ZINC OXIDE (CAS: 1314-13-2)

Local lymph node stimulation test :

Non-Sensitiser.

DIOXYDE DE TITANE (CAS: 13463-67-7)

Local lymph node stimulation test :

Non-Sensitiser.

OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity :

DIOXYDE DE TITANE (CAS: 13463-67-7)

OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Ames test (in vitro) :

Negative.

PYRITHIONE ZINC (CAS: 13463-41-7)

No mutagenic effect.

Mutagenesis (in vivo) :

Negative.

Species : Mouse

OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Carcinogenicity :

PYRITHIONE ZINC (CAS: 13463-41-7)

Carcinogenicity Test :

Negative.

No carcinogenic effect.

11.1.2. Mixture

No toxicological data available for the mixture.

11.2. Information on other hazards**Monograph(s) from the IARC (International Agency for Research on Cancer) :**

CAS 7631-86-9 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

CAS 80-62-6 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

CAS 100-41-4 : IARC Group 2B : The agent is possibly carcinogenic to humans.

CAS 14807-96-6 : IARC Group 2B : The agent is possibly carcinogenic to humans.

CAS 1330-20-7 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

CAS 13463-67-7 : IARC Group 2B : The agent is possibly carcinogenic to humans.

SECTION 12 : ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity**12.1.1. Substances**

ZINC OXIDE (CAS: 1314-13-2)

Crustacean toxicity :

Species : Ceriodaphnia dubia

Species : Ceriodaphnia dubia

Algae toxicity :

Species : Selenastrum capricornutum

Species : Selenastrum capricornutum

ROSIN, COLOPHONY (CAS: 8050-09-7)

Crustacean toxicity :

EC50 = 10.7 mg/l

Species : Daphnia magna

Duration of exposure : 48 h

Algae toxicity :

ECr50 = 400 mg/l

2-OCTYL-2H-ISOTHIAZOL-3-ONE (CAS: 26530-20-1)

Fish toxicity :

LC50 = 0.047 mg/l

Factor M = 10

Species : Oncorhynchus mykiss

Duration of exposure : 96 h

OECD Guideline 203 (Fish, Acute Toxicity Test)

NOEC = 0.022 mg/l

Factor M = 1

Duration of exposure : 21 days

Crustacean toxicity :

EC50 = 0.32 mg/l

Factor M = 1

Duration of exposure : 48 h

	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
	NOEC = 0.0016 mg/l
	Factor M = 10
	Species : Daphnia magna
	Duration of exposure : 21 days
Algae toxicity :	ECr50 = 0.084 mg/l
	Factor M = 10
	Duration of exposure : 72 h
	OECD Guideline 201 (Alga, Growth Inhibition Test)
ETHYLBENZENE (CAS: 100-41-4)	
Fish toxicity :	LC50 = 4.2 mg/l
	Species : Oncorhynchus mykiss
	Duration of exposure : 96 h
	OECD Guideline 203 (Fish, Acute Toxicity Test)
Crustacean toxicity :	EC50 = 2.2 mg/l
	Species : Daphnia magna
	Duration of exposure : 24 h
Algae toxicity :	ECr50 = 3.6 mg/l
	Species : Pseudokirchnerella subcapitata
	Duration of exposure : 72 h
PYRITHIONE ZINC (CAS: 13463-41-7)	
Fish toxicity :	LC50 = 0.0026 mg/l
	Factor M = 100
	Duration of exposure : 96 h
Crustacean toxicity :	EC50 = 0.0082 mg/l
	Factor M = 100
	Duration of exposure : 48 h
	NOEC = 0.00046 mg/l
	Factor M = 10
Algae toxicity :	ECr50 = 0.00088 mg/l
	Factor M = 1000
	Duration of exposure : 72 h
XYLENE (CAS: 1330-20-7)	
Fish toxicity :	LC50 = 2.6 mg/l
	Species : Oncorhynchus mykiss
	Duration of exposure : 96 h
	OECD Guideline 203 (Fish, Acute Toxicity Test)
Crustacean toxicity :	EC50 = 2.8 mg/l
	Species : Daphnia magna
	Duration of exposure : 24 h
	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Algae toxicity :	ECr50 = 4.36 mg/l
	Species : Pseudokirchnerella subcapitata

Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

NOEC = 0.44 mg/l
Species : *Pseudokirchnerella subcapitata*
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

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Fish toxicity :

LC50 = 9.2 mg/l
Species : *Oncorhynchus mykiss*
Duration of exposure : 96 h

Crustacean toxicity :

EC50 = 3.2 mg/l
Species : *Daphnia magna*
Duration of exposure : 48 h
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Algae toxicity :

ECr50 = 2.75 mg/l
Species : *Pseudokirchnerella subcapitata*
Duration of exposure : 72 h

4,5-DICHLORO-2-N-OCTYL-4-ISOTHIAZOL-3-ONE (CAS: 64359-81-5)

Fish toxicity :

LC50 = 0.0027 mg/l
Species : *Oncorhynchus mykiss*
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

NOEC = 0.00056 mg/l
Factor M = 100
Species : *Oncorhynchus mykiss*

Crustacean toxicity :

EC50 = 0.0057 mg/l
Species : *Daphnia magna*
Duration of exposure : 48 h

NOEC = 0.00063 mg/l
Factor M = 100
Species : *Daphnia magna*
Duration of exposure : 21 days

Algae toxicity :

ECr50 = 0.048 mg/l
Species : *Raphidocelis subcapitata*
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

DIOXYDE DE TITANE (CAS: 13463-67-7)

Fish toxicity :

LC50 > 10000 mg/l
Species : *Cyprinodon variegatus*
Duration of exposure : 96 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability**12.2.1. Substances**

2-OCTYL-2H-ISOTHIAZOL-3-ONE (CAS: 26530-20-1)

Biodegradability : Non-rapidly degradable.

ETHYLBENZENE (CAS: 100-41-4)

Biodegradability : Rapidly degradable.

4,5-DICHLORO-2-N-OCTYL-4-ISOTHIAZOL-3-ONE (CAS: 64359-81-5)

Biodegradability : Non-rapidly degradable.

PYRITHIONE ZINC (CAS: 13463-41-7)

Biodegradability : Rapidly degradable.

XYLENE (CAS: 1330-20-7)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

ROSIN, COLOPHONY (CAS: 8050-09-7)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

ZINC OXIDE (CAS: 1314-13-2)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

HYDROCARBONS, C9, AROMATICS

Biodegradability : Rapidly degradable.

12.3. Bioaccumulative potential**12.3.1. Substances**

ETHYLBENZENE (CAS: 100-41-4)

Octanol/water partition coefficient : $\log K_{ow} = 3.15$

Bioaccumulation : BCF = 15

XYLENE (CAS: 1330-20-7)

Octanol/water partition coefficient : $3 \leq \log K_{ow} < 4$.**12.4. Mobility in soil**

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :

WGK 3 : Extremely hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2021 - IMDG 2020 - ICAO/IATA 2021).

14.1. UN number or ID number

1263

14.2. UN proper shipping name

UN1263=PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)

14.3. Transport hazard class(es)

- Classification :



3

14.4. Packing group

III

14.5. Environmental hazards

- Environmentally hazardous material :

**14.6. Special precautions for user**

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	3	F1	III	3	30	5 L	163 367 650	E1	3	D/E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	3	-	III	5 L	F-E. S-E	163 223 367 955	E1	Category A	-

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	3	-	III	355	60 L	366	220 L	A3 A72 A192	E1
	3	-	III	Y344	10 L	-	-	A3 A72 A192	E1

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(pyrithione zinc)

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****- Classification and labelling information included in section 2:**

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/643 (ATP 16)
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/849 (ATP 17)

- Container information:

No data available.

Usage restrictions apply to the product : See annex XVII of EC regulation No. 1907/2006.

For professional users only.

- Particular provisions :

No data available.

- Labelling for biocidal products (Regulation (UE) n° 528/2012) :

Name	CAS	%	Product-type
PYRITHIONE ZINC	13463-41-7	47.03 g/kg	21
4,5-DICHLORO-2-N-OCTYL-4-ISOTHIAZOL-3-ONE	64359-81-5	29.70 g/kg	21

Product-type 21 : Antifouling products.

- German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :

WGK 3 : Extremely hazardous for water.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

H360D	May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure .
H373	May cause damage to organs through prolonged or repeated exposure .
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.
EUH066	Repeated exposure may cause skin dryness or cracking.

Abbreviations :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

NOEC : The concentration with no observed effect.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate

BW : Body Weight

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

CMR: Carcinogenic, mutagenic or reprotoxic.

UFI : Unique formulation identifier.

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TMP : French Occupational Illness table

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS02 : Flame

GHS05 : Corrosion

GHS07 : Exclamation mark

GHS08 : Health hazard

GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.