

According to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: SDS-18725-11
Issue date: 7/18/2025 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Trade name : EXPLORER AFR800 ECOMAR Navy Blue
Product group : Trade product

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

Relevant identified uses

Main use category : Industrial use, Professional use
Use of the substance/mixture : Paint. For Professional users/Industrial user only.

Uses advised against

Restrictions on use : All uses not specified in this section or in section 7.3

1.3. Details of the supplier of the safety data sheet

Supplier

Vilckens Boyaları San. Tic. Ltd.
Postane Mahallesi Esentepe Caddesi
Manastır Yolu No:21
34940 Tuzla / İstanbul
Türkiye
T 0212 356 93 56, F 0212 356 95 00

1.4. Emergency telephone number

No additional information available

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 3 H226
Acute toxicity (dermal), Category 4 H312
Acute toxicity (inhalation:vapour) Category 4 H332
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 1 H318
Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment – Acute Hazard, Category 1 H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1 H410
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Harmful in contact with skin. Harmful if inhaled. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Very toxic to aquatic life with long lasting effects. Flammable liquid and vapour.

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Contains

: Xylene; Dicopper oxide; Rosin; Zineb (ISO); Bis(1-hydroxy-1H-pyridine-2-thionato-O,S) copper

Hazard statements (CLP)

: H226 - Flammable liquid and vapour.
 H312+H332 - Harmful in contact with skin or if inhaled.
 H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H318 - Causes serious eye damage.
 H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames. – No smoking.
 P280 - Wear protective gloves, face protection, protective clothing, respiratory protection, protective footwear.
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P370+P378 - In case of fire: Use foam extinguisher (AB), dry chemical powder (ABC) fire extinguisher, carbon dioxide extinguisher (BC) for extinction.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P501 - Dispose of contents, container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH 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 substance(s) are 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

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Xylene (Note C)	CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9	25 – 50	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation:vapour), H332 (ATE=11 mg/l/4h) Skin Irrit. 2, H315
Dicopper oxide	CAS-No.: 1317-39-1 EC-No.: 215-270-7 EC Index-No.: 029-002-00-X	10 – 25	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Inhalation:dust,mist), H332 (ATE=1.5 mg/l/4h) Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)
Rosin	CAS-No.: 8050-09-7 EC-No.: 232-475-7 EC Index-No.: 650-015-00-7	10 – 25	Skin Sens. 1, H317
Copper thiocyanate	CAS-No.: 1111-67-7 EC-No.: 214-183-1 EC Index-No.: 615-032-00-6	10 – 25	Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Zinc oxide	CAS-No.: 1314-13-2 EC-No.: 215-222-5 EC Index-No.: 030-013-00-7	2.5 – 10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410



Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Zineb (ISO)	CAS-No.: 12122-67-7 EC-No.: 235-180-1 EC Index-No.: 006-078-00-2	2.5 – 10	Skin Sens. 1, H317 STOT SE 3, H335
N-butyl acetate	CAS-No.: 123-86-4 EC-No.: 204-658-1 EC Index-No.: 607-025-00-1	2.5 – 10	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066
Bis(1-hydroxy-1H-pyridine-2-thionato-O,S) copper	CAS-No.: 14915-37-8 EC-No.: 238-984-0	< 1	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 1 (Inhalation), H330 (ATE=0.005 mg/l/4h) Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=100)

Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers. Full text of H- and EUH-statements; see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention. Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: If skin irritation or rash occurs: Get medical advice/attention. Rinse skin with water/shower. Take off immediately all contaminated clothing.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. Do not induce vomiting. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation	: Harmful if inhaled.
Symptoms/effects after skin contact	: Harmful in contact with skin. Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.

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 chemical powder, alcohol-resistant foam, carbon dioxide (CO ₂).
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Contact with combustible material may cause fire. Flammable liquid and vapour.
Explosion hazard	: Risk of explosion if heated under confinement.
Hazardous decomposition products in case of fire	: On heating or during combustion : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	: Keep away from combustible materials. Keep container closed when not in use. Approach from upwind.
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Firefighting instructions	: Exercise caution when fighting any chemical fire. Keep upwind. Do not enter fire area without proper protective equipment, including respiratory protection. Eliminate all ignition sources if safe to do so. Contain the extinguishing fluids by bunding.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Notify authorities if product enters sewers or public waters. High temperature decomposition products are harmful by inhalation. Inhalation of vapour can cause breathing difficulties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Keep public away from danger area.
For non-emergency personnel	
Protective equipment	: For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate spillage area. Do not touch or walk on the spilled product. Notify fire brigade and environmental authorities. Avoid contact with skin, eyes and clothing. Avoid breathing dust/fume/gas/mist/vapours/spray. No open flames, no sparks, and no smoking.
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".
Emergency procedures	: Evacuate unnecessary personnel. Equip cleanup crew with proper protection. Stop leak if safe to do so. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Do not touch or walk on the spilled product. Collect spillage.
Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see 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. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume, gas, mist, spray, vapours. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ground/bond container and receiving equipment.
Storage conditions	: Keep only in the original container in a cool well ventilated place. Store in a well-ventilated place. Keep cool. Keep container tightly closed.
Incompatible products	: Strong acids. Strong bases. Strong oxidizing agents.



Incompatible materials	: Extremely high or low temperatures.
Maximum storage period	: 6 months
Storage temperature	: 5 – 30 °C
Heat and ignition sources	: Keep away from heat and direct sunlight. Keep away from sources of ignition.
Information on mixed storage	: Keep away from food, drink and animal feeding stuffs.
Storage area	: Store, if possible, in a cool, well ventilated place away from incompatible materials.

Germany

Storage class (LGK, TRGS 510)

Joint storage table

: LGK 3 - Flammable liquids

LGK 1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
LGK 4.1B	LGK 4.2	LGK 4.3	LGK 5.1A	LGK 5.1B
LGK 5.1C	LGK 5.2	LGK 6.1A	LGK 6.1B	LGK 6.1C
LGK 6.1D	LGK 6.2	LGK 7	LGK 8A	LGK 8B
LGK 10	LGK 11	LGK 12	LGK 13	LGK 10-13

Joint storage not permitted for

: LGK 1, LGK 2A, LGK 4.1A, LGK 4.1B, LGK 4.2, LGK 4.3, LGK 5.1A, LGK 5.1C, LGK 5.2, LGK 6.1B, LGK 6.2, LGK 7

Joint storage with restrictions permitted for

: LGK 5.1B, LGK 6.1D, LGK 11, LGK 10-13

Joint storage permitted for

: LGK 2B, LGK 3, LGK 6.1A, LGK 6.1C, LGK 8A, LGK 8B, LGK 10, LGK 12, LGK 13

7.3. Specific end use(s)

See Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

National occupational exposure and biological limit values

Xylene (1330-20-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Xylene, mixed isomers, pure
IOEL TWA	221 mg/m ³
	50 ppm
IOEL STEL	442 mg/m ³
	100 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC

Dicopper oxide (1317-39-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Copper(I) oxide
IOEL TWA	0.01 mg/m ³ (respirable fraction)
Remark	(Year of adoption 2014)
Regulatory reference	SCOEL Recommendations

N-butyl acetate (123-86-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	n-Butyl acetate
IOEL TWA	241 mg/m ³
	50 ppm
IOEL STEL	723 mg/m ³



N-butyl acetate (123-86-4)

	150 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2019/1831

DNEL and PNEC

Xylene (1330-20-7)

DNEL/DMEL (Workers)

Acute - systemic effects, inhalation	442 mg/m ³
Acute - local effects, inhalation	442 mg/m ³
Long-term - systemic effects, dermal	212 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	221 mg/m ³
Long-term - local effects, inhalation	221 mg/m ³

DNEL/DMEL (General population)

Acute - systemic effects, inhalation	260 mg/m ³
Acute - local effects, inhalation	260 mg/m ³
Long-term - systemic effects, oral	12.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	65.3 mg/m ³
Long-term - systemic effects, dermal	125 mg/kg bodyweight/day
Long-term - local effects, inhalation	65.3 mg/m ³

PNEC (Water)

PNEC aqua (freshwater)	0.327 mg/l
PNEC aqua (marine water)	0.327 mg/l
PNEC aqua (intermittent, freshwater)	0.327 mg/l

PNEC (Sediment)

PNEC sediment (freshwater)	12.46 mg/kg dwt
PNEC sediment (marine water)	12.46 mg/kg dwt

PNEC (Soil)

PNEC soil	2.31 mg/kg dwt
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PNEC (STP)

PNEC sewage treatment plant	6.58 mg/l
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Dicopper oxide (1317-39-1)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	137 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1 mg/m ³
Long-term - local effects, inhalation	1 mg/m ³

DNEL/DMEL (General population)

Acute - systemic effects, oral	0.082 mg/kg bodyweight/day
Long-term - systemic effects, oral	0.041 mg/kg bodyweight/day

PNEC (Water)

PNEC aqua (freshwater)	7.8 µg/l
PNEC aqua (marine water)	5.2 µg/l



Dicopper oxide (1317-39-1)
PNEC (Sediment)

PNEC sediment (freshwater)	87 mg/kg dwt
PNEC sediment (marine water)	676 mg/kg dwt

PNEC (Soil)

PNEC soil	65 mg/kg dwt
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PNEC (STP)

PNEC sewage treatment plant	230 µg/l
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Rosin (8050-09-7)
DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	2.131 mg/kg bodyweight/day
Long-term - local effects, inhalation	10 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	1.0655 mg/kg bodyweight/day
Long-term - systemic effects, dermal	1.0655 mg/kg bodyweight/day

PNEC (Water)

PNEC aqua (freshwater)	0.0016 mg/l
PNEC aqua (marine water)	0.00016 mg/l
PNEC aqua (intermittent, freshwater)	0.016 mg/l

PNEC (Sediment)

PNEC sediment (freshwater)	0.007 mg/kg dwt
PNEC sediment (marine water)	0.0007 mg/kg dwt

PNEC (Soil)

PNEC soil	0.00045 mg/kg dwt
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PNEC (STP)

PNEC sewage treatment plant	1000 mg/l
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Zinc oxide (1314-13-2)
DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	83 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5 mg/m ³
Long-term - local effects, inhalation	0.5 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	0.83 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.5 mg/m ³
Long-term - systemic effects, dermal	83 mg/kg bodyweight/day

PNEC (Water)

PNEC aqua (freshwater)	20.6 µg/l
PNEC aqua (marine water)	6.1 µg/l

PNEC (Sediment)

PNEC sediment (freshwater)	117.8 mg/kg dwt
PNEC sediment (marine water)	56.5 mg/kg dwt



Zinc oxide (1314-13-2)

PNEC (Soil)

PNEC soil 35.6 mg/kg dwt

PNEC (STP)

PNEC sewage treatment plant 100 µg/l

N-butyl acetate (123-86-4)

PNEC (Water)

PNEC aqua (freshwater) 0.18 mg/l

PNEC aqua (marine water) 0.018 mg/l

PNEC aqua (intermittent, freshwater) 0.36 mg/l

PNEC (Sediment)

PNEC sediment (freshwater) 0.981 mg/kg dwt

PNEC sediment (marine water) 0.0981 mg/kg dwt

PNEC (Soil)

PNEC soil 0.0903 mg/kg dwt

PNEC (STP)

PNEC sewage treatment plant 35.6 mg/l

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment:

Gas mask. Gloves. Face shield. Protective clothing. Use footwear with anti-static or anti-spark features.

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Safety glasses. Use splash goggles when eye contact due to splashing is possible. In case of dust production: protective goggles. Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

Eye protection

Type	Field of application	Characteristics	Standard
Mandatory face protection	Face shield		EN 166:2002, UNE-EN ISO 18526-1 al 4:2020, UNE-EN ISO 18526-1 al 4:2020, EN ISO 4007:2018



Skin protection

Skin and body protection:

According to the conditions of use, protective gloves, apron, boots, head and face protection must be worn. Disposable clothing for protection against chemical risks, with antistatic and fireproof properties. For professional use only. Clean periodically according to the manufacturer's instructions. Safety footwear for protection against chemical risk, with antistatic and heat resistant properties. Replace boots at any sign of deterioration. Replace boots at any sign of deterioration.

Skin and body protection	
Type	Standard
Mandatory complete body protection	EN 1149-1,2,3, EN 13034:2005+A1:2009, EN ISO 13982-1:2005/A1:2011, EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1995
Mandatory foot protection	EN ISO 13287:2020, EN ISO 20345:2022, EN 13832-1:2019

Hand protection:

Protective gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. The breakthrough time of the selected gloves must be greater than the intended use period. Gloves must be replaced after each use and whenever signs of wear or perforation appear. Replace the gloves at any sign of deterioration.

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Mandatory hand protection	Chemical protective gloves, Linear low-density polyethylene (LLDPE)	> 480 min	0.0062		EN ISO 21420:2020

Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. [In case of inadequate ventilation] wear respiratory protection. Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

Respiratory protection			
Device	Filter type	Condition	Standard
Mandatory respiratory tract protection	Filter mask for gases and vapours		EN 405:2002+A1:2010

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	: Liquid
Colour	: Blue-Black.
Molecular mass	: 107.57 g/mol
Odour	: According to product specification.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: 135 °C
Flammability	: Not applicable
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 25 °C
Auto-ignition temperature	: 421 °C
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: 0.96 mm ² /s (20 °C)
Viscosity, dynamic	: 1.49 mPa·s (20 °C)
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 812 Pa (20 °C)
Vapour pressure at 50°C	: 4393.3 Pa
Density	: 1420 – 1480 kg/m ³ (20 °C)
Relative density	: 1.42 – 1.48 (20 °C)
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

Other safety characteristics

VOC content	: 29.1 %
Other properties	: V.O.C. density at 20 °C: 421,95 kg/m ³ (421,95 g/L) Average carbon number: 7,73

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Applicable for handling and storage at room temperature; Increase in temperature: Risk of combustion, Sunlight: Avoid direct impact.

10.5. Incompatible materials

Avoid strong acids. Avoid direct impact of oxidising materials. Avoid alkalis or strong bases.

10.6. Hazardous decomposition products

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met).
Acute toxicity (dermal)	: Harmful in contact with skin.
Acute toxicity (inhalation)	: Inhalation:vapour: Harmful if inhaled.



EXPLORER AFR800 ECOMAR Navy Blue

ATE CLP (dermal)	1100 mg/kg bodyweight
ATE CLP (vapours)	15.278 mg/l/4h

Xylene (1330-20-7)

LD50 oral rat	3523 mg/kg Source: ECHA
LD50 oral	3500 mg/kg
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LD50 dermal	1100 mg/kg
LC50 Inhalation - Rat [ppm]	5922 ppm
LC50 Inhalation - Rat (Vapours)	17 mg/l/4h

Dicopper oxide (1317-39-1)

LD50 oral	500 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat (Vapours)	11 mg/l/4h

Rosin (8050-09-7)

LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
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Zinc oxide (1314-13-2)

LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
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Bis(1-hydroxy-1H-pyridine-2-thionato-O,S) copper (14915-37-8)

LC50 Inhalation - Rat (Vapours)	0.5 mg/l/4h
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Skin corrosion/irritation : Causes skin irritation.

N-butyl acetate (123-86-4)

pH	6.2 Temp.: 20 °C Concentration: 5,3 g/L
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Serious eye damage/irritation : Causes serious eye damage.

N-butyl acetate (123-86-4)

pH	6.2 Temp.: 20 °C Concentration: 5,3 g/L
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Respiratory or skin sensitisation : May cause an allergic skin reaction.

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)

Xylene (1330-20-7)

IARC group	3 - Not classifiable
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Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)



STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

Zineb (ISO) (12122-67-7)

STOT-single exposure May cause respiratory irritation.

N-butyl acetate (123-86-4)

STOT-single exposure May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Xylene (1330-20-7)

LOAEL (oral, rat, 90 days) 150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)

Zinc oxide (1314-13-2)

LOAEL (dermal, rat/rabbit, 90 days) 75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

NOAEL (oral, rat, 90 days) 31.52 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

N-butyl acetate (123-86-4)

LOAEL (oral, rat, 90 days) 500 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)

NOAEL (oral, rat, 90 days) 125 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

EXPLORER AFR800 ECOMAR Navy Blue

Viscosity, kinematic 0.96 mm²/s (20 °C)

N-butyl acetate (123-86-4)

Viscosity, kinematic 0.83 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in 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. Very toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

Xylene (1330-20-7)

LC50 - Fish [1] 3.3 mg/l

EC50 - Crustacea [1] > 3.4 mg/l Test organisms (species): Ceriodaphnia dubia



Xylene (1330-20-7)

LOEC (chronic)	3.16 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

Rosin (8050-09-7)

LC50 - Fish [1]	5.4 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
LC50 - Fish [2]	5.4 mg/l Test organisms (species):

N-butyl acetate (123-86-4)

LC50 - Fish [1]	18 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	44 mg/l Test organisms (species): Daphnia sp.
EC50 - Other aquatic organisms [1]	32 mg/l Test organisms (species): Artemia salina
EC50 72h - Algae [1]	397 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	246 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
LOEC (chronic)	47.6 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	23.2 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability
EXPLORER AFR800 ECOMAR Navy Blue

Persistence and degradability	Not rapidly degradable
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Xylene (1330-20-7)

Persistence and degradability	Not rapidly degradable
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Dicopper oxide (1317-39-1)

Persistence and degradability	Not rapidly degradable
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Rosin (8050-09-7)

Persistence and degradability	Not rapidly degradable
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Copper thiocyanate (1111-67-7)

Persistence and degradability	Not rapidly degradable
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Zinc oxide (1314-13-2)

Persistence and degradability	Not rapidly degradable
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Zineb (ISO) (12122-67-7)

Persistence and degradability	Not rapidly degradable
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N-butyl acetate (123-86-4)

Persistence and degradability	Not rapidly degradable
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Bis(1-hydroxy-1H-pyridine-2-thionato-O,S) copper (14915-37-8)

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

Xylene (1330-20-7)	
Partition coefficient n-octanol/water (Log Pow)	3.15 Source: HSDB

Zinc oxide (1314-13-2)	
Bioaccumulative potential	No data available.

12.4. Mobility in soil

Zinc oxide (1314-13-2)	
Ecology - soil	No data available.

12.5. Results of PBT and vPvB assessment

EXPLORER AFR800 ECOMAR Navy Blue	
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	

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Rosin (8050-09-7), Zinc oxide (1314-13-2)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Rosin (8050-09-7), Zinc oxide (1314-13-2)

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

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Completely empty the packaging prior to decontamination. Recycle the material as far as possible. Comply with local regulations for disposal.
Additional information	: Flammable vapours may accumulate in the container.
Ecological waste information	: Avoid release to the environment.
European List of Waste (LoW, EC 2000/532)	: 08 01 11* - waste paint and varnish containing organic solvents or other dangerous substances

SECTION 14: TRANSPORT INFORMATION

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1263	UN 1263	UN 1263	UN 1263	UN 1263
14.2. UN proper shipping name				
PAINT	PAINT	Paint	PAINT	PAINT



ADR	IMDG	IATA	ADN	RID
Transport document description				
UN 1263 PAINT, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1263 PAINT, 3, III, MARINE POLLUTANT/ENVIRONM ENTALLY HAZARDOUS	UN 1263 Paint, 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1263 PAINT, 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1263 PAINT, 3, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
3	3	3	3	3
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes EmS-No. (Fire): F-E EmS-No. (Spillage): S-E	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: F1
Special provisions (ADR)	: 163, 367, 650
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Special packing provisions (ADR)	: PP1
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T2
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 30
Orange plates	:

Tunnel restriction code (ADR) : D/E

Transport by sea

Special provisions (IMDG)	: 163, 223, 367, 955
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T2



Tank special provisions (IMDG) : TP1, TP29
Stowage category (IMDG) : A
Properties and observations (IMDG) : Miscibility with water depends upon the composition.

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y344
PCA limited quantity max net quantity (IATA) : 10L
PCA packing instructions (IATA) : 355
PCA max net quantity (IATA) : 60L
CAO packing instructions (IATA) : 366
CAO max net quantity (IATA) : 220L
Special provisions (IATA) : A3, A72, A192
ERG code (IATA) : 3L

Inland waterway transport

Classification code (ADN) : F1
Special provisions (ADN) : 163, 367, 650
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : F1
Special provisions (RID) : 163, 367, 650
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Packing instructions (RID) : P001, IBC03, LP01, R001
Special packing provisions (RID) : PP1
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T2
Portable tank and bulk container special provisions (RID) : TP1, TP29
Tank codes for RID tanks (RID) : LGBF
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Colis express (express parcels) (RID) : CE4
Hazard identification number (RID) : 30

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals): Zineb (12122-67-7)



POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

VOC Directive (2004/42)

VOC content : 29.1 %

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG).
 Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
 Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).
 Major Accidents Ordinance (12. BImSchV) : Is listed in the Major Accidents Ordinance (12. BImSchV)

Major Accidents Ordinance (12. BImSchV)

Number	Code	Title	Lower-tier	Upper-tier
1.2.5.1	P5a	Flammable liquids. Flammable liquids of category 1; flammable liquids of category 2 or 3 maintained at a temperature above their boiling point; other liquids with a flash point of ≤ 60 °C maintained at a temperature above their boiling point	10,000 kg	50,000 kg
1.2.5.2	P5b	Flammable liquids. Flammable liquids of category 2 or 3, where special processing conditions such as high pressure or high temperature can lead to the risk of accidents; other liquids with a flash point of ≤ 60 °C, where special processing conditions such as high pressure or high temperature can lead to the risk of accidents	50,000 kg	200,000 kg
1.2.5.3	P5c	Flammable liquids of categories 2 or 3, not covered under P5a and P5b	5,000,000 kg	50,000,000 kg
1.3.1	E1	Hazardous to the aquatic environment, Acute 1 or Chronic 1	100,000 kg	200,000 kg

VOC content : 29.1 %

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)



Abbreviations and acronyms:

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

Data sources : ECHA (European Chemicals Agency). Supplier's safety documents.

Full text of H- and EUH-statements:

Acute Tox. 1 (Inhalation)	Acute toxicity (inhal.), Category 1
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3



Full text of H- and EUH-statements:

Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Flam. Liq. 3	H226	On basis of test data
Acute Tox. 4 (Dermal)	H312	Calculation method
Acute Tox. 4 (Inhalation:vapour)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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