	NANOPHOS S.A.	Revision nr. 5 Dated 14/02/2019
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	Safety Data Sheet According to Annex II to REACH - Regulation 2015/830	
SECTION 1. Identification of t	he substance/mixture and of the compa	ny/undertaking
1.1. Product identifier		
Code:	NanoPhos_GA_17092018-006	
Product name	Sea Queen Extreme	
	tance or mixture and uses advised against	
1.2. Relevant identified uses of the subs Intended use Antifouling	tance or mixture and uses advised against Paint	
 1.2. Relevant identified uses of the subs Intended use Antifouling 1.3. Details of the supplier of the safety of Name 	tance or mixture and uses advised against Paint data sheet NANOPHOS S.A.	
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2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Acute toxicity, category 2	H300	Fatal if swallowed.
Acute toxicity, category 4	H312	Harmful in contact with skin.
Acute toxicity, category 4	H332	Harmful if inhaled.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, acute toxicity, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 1	H410	Very toxic to aquatic life with long lasting effects.

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2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.



Hazard statements:

H226	Flammable liquid and vapour.
H300	Fatal if swallowed.
H312+H332	Harmful in contact with skin or if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P280	Wear protective gloves or protective clothing and eye or face protection.
P310	Immediately call a POISON CENTER or doctor.
P370+P378	In case of fire: use dry powder or Carbon Dioxide (CO ₂) fire extinguisher to extinguish.
P273	Avoid release to the environment.
Contains:	4-bromo-2-(4-chlorophenyl)-5-(trifluoromethyl)-1H-pyrrole-3-carbonitrile zinc pyrithione ROSIN XYLENE (MIXTURE OF ISOMERS)

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

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ontains:		
Identification	x = Conc. %	Classification 1272/2008 (CLP)
XYLENE (MIXTURE OF ISOMERS)		
CAS 1330-20-7	10 < x < 30	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Irrit. 2 H315, Classification note according to Annex VI to the CLP Regulation: C
EC 215-535-7		Classification note according to Annex VI to the CLP Regulation. C
INDEX 601-022-00-9		
4-METHYLPENTAN-2-ONE		
CAS 108-10-1	10 < x < 20	Flam. Liq. 2 H225, Acute Tox. 4 H332, Eye Irrit. 2 H319, STOT SE 3 H335,
EC 203-550-1		EUH066
INDEX 606-004-00-4		
ZINC OXIDE		
CAS 1314-13-2	10 < x < 25	Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC 215-222-5		
INDEX 030-013-00-7		
ROSIN		
CAS 8050-09-7	5 < x < 10	Skin Sens. 1 H317
EC 232-475-7		
INDEX 650-015-00-7		
zinc pyrithione		
CAS 13463-41-7	5 < x < 10	Acute Tox. 3 H301, Acute Tox. 3 H331, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=100, Aquatic Chronic 1 H410 M=10
EC		
INDEX -		
4-bromo-2-(4-chlorophenyl)-5- (trifluoromethyl)-1H-pyrrole-3- carbonitrile		
CAS 122454-29-9	5 < x < 10	Acute Tox. 2 H300, Acute Tox. 3 H311, STOT RE 1 H372, Aquatic Acute 1
EC		H400 M=1, Aquatic Chronic 1 H410 M=1
INDEX -		
METHYL ETHYL KETONE		
CAS 78-93-3	0 < x < 5	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 201-159-0		
INDEX 606-002-00-3		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

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SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately. INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

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6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
GRC	Ελλάδα	ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ -ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2018

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XYLENE (MIXTURE	OF ISOMERS)						
Threshold Limit Val							
Туре	Country	TWA/8h		STEL/15min			
		mg/m3	ppm	mg/m3	ppm		
VLEP	FRA	221	50	442	100	SKIN	
WEL	GBR	220	50	441	100		
TLV	GRC	435	100	650	150		
OEL	EU	221	50	442	100	SKIN	
TLV-ACGIH		434	100	651	150		

4-METHYLPENTAN-2-ONE

Threshold Limit Valu							
Туре	Country	TWA/8h		STEL/15min			
		mg/m3	ppm	mg/m3	ppm		
VLEP	FRA	83	20	208	50		
WEL	GBR	208	50	416	100	SKIN	
TLV	GRC	410	100	410	100		
OEL	EU	83	20	208	50		
TLV-ACGIH		82	20	307	75		

ZINC OXIDE

Threshold Limit Val	ue					
Туре	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLEP	FRA	5				
TLV	GRC	5		10		
TLV-ACGIH		2		10		

METHYL ETHYL KETONE

Threshold Limit Value							
Туре	Country	TWA/8h		STEL/15min			
		mg/m3	ppm	mg/m3	ppm		
VLEP	FRA	600	200	900	300	SKIN	
WEL	GBR	600	200	899	300	SKIN	
TLV	GRC	600	200	900	300		
OEL	EU	600	200	900	300		
TLV-ACGIH		590	200	885	300		

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

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Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear opencircuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	Not available
Odour	Not available
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	23 < T < 60 °C
Boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available

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Vapour density Relative density Solubility Partition coefficient: n-octanol/water Auto-ignition temperature Decomposition temperature Viscosity Explosive properties Oxidising properties

Not available Not available

9.2. Other information

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

4-METHYLPENTAN-2-ONE

Reacts violently with: light metals. Attacks various types of plastic materials.

METHYL ETHYL KETONE

Reacts with: light metals, strong oxidants. Attacks various types of plastic materials. Decomposes under the effect of heat.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

XYLENE (MIXTURE OF ISOMERS)

Stable in normal conditions of use and storage. Reacts violently with: strong oxidants, strong acids, nitric acid, perchlorates. May form explosive mixtures with: air.

4-METHYLPENTAN-2-ONE

May react violently with: oxidising agents. Forms peroxides with: air. Forms explosive mixtures with: hot air.

METHYL ETHYL KETONE

May form peroxides with: air, light, strong oxidising agents. Risk of explosion on contact with: hydrogen peroxide, nitric acid, sulphuric acid. May react dangerously with: oxidising agents, trichloromethane, alkalis. Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

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4-METHYLPENTAN-2-ONE

Avoid exposure to: sources of heat.

METHYL ETHYL KETONE

Avoid exposure to: sources of heat.

10.5. Incompatible materials

4-METHYLPENTAN-2-ONE

Incompatible with: oxidising substances, reducing substances.

METHYL ETHYL KETONE

Incompatible with: strong oxidants, inorganic acids, ammonia, copper, chloroform.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

XYLENE (MIXTURE OF ISOMERS)

WORKERS: inhalation; contact with the skin. POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

XYLENE (MIXTURE OF ISOMERS)

Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

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XYLENE (MIXTURE OF ISOMERS)

Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.

ACUTE TOXICITY

LC50 (Inhalation - mists / powders) of the mixture: Acute Tox. 4 LC50 (Inhalation - vapours) of the mixture: Acute Tox. 4 LD50 (Oral) of the mixture: 49,10 mg/kg LD50 (Dermal) of the mixture: 1650,00 mg/kg

XYLENE (MIXTURE OF ISOMERS)

LD50 (Oral) 3523 mg/kg Rat

LD50 (Dermal) 4350 mg/kg Rabbit

LC50 (Inhalation) 26 mg/l/4h Rat

METHYL ETHYL KETONE

LD50 (Oral) 2737 mg/kg Rat

LD50 (Dermal) 6480 mg/kg Rabbit

LC50 (Inhalation) 23,5 mg/l/8h Rat

4-METHYLPENTAN-2-ONE

LD50 (Oral) 2080 mg/kg Rat

LD50 (Dermal) > 16000 mg/kg Rabbit

LC50 (Inhalation) > 8,2 mg/l/4h Rat

zinc pyrithione

LD50 (Oral) 269 mg/kg (Rat)

LD50 (Dermal) > 2000 mg/kg rat

LC50 (Inhalation) 0,83 mg/l/4h Male rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

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Causes serious eye damage	
RESPIRATORY OR SKIN SENSITISATION	
Sensitising for the skin	
GERM CELL MUTAGENICITY	
Does not meet the classification criteria for this hazard class	
CARCINOGENICITY	
Does not meet the classification criteria for this hazard class	
XYLENE (MIXTURE OF ISOMERS)	
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Ca The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the	
REPRODUCTIVE TOXICITY	
Does not meet the classification criteria for this hazard class	
STOT - SINGLE EXPOSURE	
Does not meet the classification criteria for this hazard class	
STOT - REPEATED EXPOSURE	
May cause damage to organs	
ASPIRATION HAZARD	
Does not meet the classification criteria for this hazard class	

SECTION 12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

1,1 mg/l/96h Oncorhynchus mykiss
1,7 mg/l/48h Daphnia magna
0,14 mg/l/72h Pseudokirchnerella subcapitata
0,53 mg/l
0,024 mg/l

zinc pyrithione EC50 - for Algae / Aquatic Plants

0,0082 mg/l/72h Toxicity to daphnia and other aquatic invertebrates

ROSIN Solubility in water Rapidly degradable0.1 - 100 mg/lMETHYL ETHYL KETONE Solubility in water Rapidly degradable> 10000 mg/l4METHYLPENTAN-2-ONE Solubility in water> 10000 mg/lZINC OXIDE Solubility in water> 10000 mg/lSolubility in water Rapidly degradable> 10000 mg/lZINC OXIDE Solubility in water2.9 mg/lSolubility in water Solubility in water0.1 - 100 mg/lSolubility in water Solubility in water2.9 mg/lSolubility in water Solubility in omation not available3.12XT rapidly degradable3.12ZINC OXIDE Partition coefficient: n-octanol/water3.2SOISN Partition coefficient: n-octanol/water3.2ROSIN Partition coefficient: n-octanol/water	NANOPHOS S.A.		Revision nr. 5 Dated 14/02/2019
2. Persistence and logradability: NUX_LENE (MIXTURE OF ISOMERS) Sylubility invare 00 - 1000 mg1 Degradability: information not available 0.1 - 100 mg1 ROSIN 0.1 - 100 mg1 Solubility in water 0.1 - 100 mg1 Roging degradable 0.1 - 100 mg1 METHYLETHYLKETONE > 10000 mg1 Rajidly degradable > 10000 mg1 AMETHYLENTAN-2-ONE > 10000 mg1 Solubility in water 0.1 - 100 mg1 Rodidly degradable > 10000 mg1 Solubility in water 0.1 - 100 mg1 Solubility in water 3.12 Solubility in water 3.12 Solubility in water 3.2 Solubility in water 3.2 Solubility in water 3.3 Solubility in water 3.3 <th>Sea Qu</th> <th>leen Extreme</th> <th></th>	Sea Qu	leen Extreme	
XVLENE (MIXTURE OF ISOMERS) 100 - 1000 mg/l Degradability: information not available 0,1 - 100 mg/l ROSIN 0,1 - 100 mg/l Solubility in water 0,1 - 100 mg/l Roging adabile - 10000 mg/l METHYL ETHYL KETONE - 10000 mg/l Solubility in water > 10000 mg/l Ropidly degradable > 10000 mg/l 4METHYL PENTAN-2-ONE - 10000 mg/l Solubility in water > 10000 mg/l Ropidly degradable > 10000 mg/l Solubility in water 2 9 mg/l Solubility in water 2.9 mg/l Solubility in water 3.12 Solubility in coefficient: n-octanol/water 3.12 BCF 2.5,0 ROSIN 3.2 Partition coefficient: n-octanol/water 3.2 BCF <td< th=""><th>Chronic NOEC for Algae / Aquatic Plants</th><th>0,00046 mg/l 120h</th><th></th></td<>	Chronic NOEC for Algae / Aquatic Plants	0,00046 mg/l 120h	
Solubility in water 100-1000 mg/l ROSIN Solubility in water 0.1-100 mg/l ROSIN Solubility in water 0.1-100 mg/l Solubility in water >10000 mg/l Robit degradable >10000 mg/l AMETHYL ETHYL KETONE Solubility in water >10000 mg/l Solubility in water >10000 mg/l Rapidy degradable >10000 mg/l AMETHYL PENTAN-2-ONE Solubility in water 29 mg/l Solubility in water 29 mg/l Solubility in water 29 mg/l Solubility in water 1.1-100 mg/l Solubility in water 2.9 mg/l Solubility in commentation 3.12 Solubility in coefficient: n-octanol/water 3.6 Solubility in coefficient: n-octanol/water 3.6 Solubility in coeffici	2.2. Persistence and degradability		
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2.3. Bioaccumulative potential XYLENE (MIXTURE OF ISOMERS) Partition coefficient: n-octanol/water 3,12 BCF 25,9 ROSIN Partition coefficient: n-octanol/water 3 BCF 56,23 METHYL ETHYL KETONE Partition coefficient: n-octanol/water 0,3 4-METHYLPENTAN-2-ONE Partition coefficient: n-octanol/water 1,9 ZINC OXIDE	Degradability: information not available		
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Partition coefficient: n-octanol/water 0,3 4-METHYLPENTAN-2-ONE 1,9 Partition coefficient: n-octanol/water 1,9 ZINC OXIDE 1,9		,	
4-METHYLPENTAN-2-ONE Partition coefficient: n-octanol/water 1,9 ZINC OXIDE	-		
Partition coefficient: n-octanol/water 1,9 ZINC OXIDE 1,9	Partition coefficient: n-octanol/water	0,3	
Partition coefficient: n-octanol/water 1,9 ZINC OXIDE 1,9	4-METHYLPENTAN-2-ONE		
		1,9	
BCF > 175	ZINC OXIDE BCF	× 175	

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12.4. Mobility in soil

XYLENE (MIXTURE OF ISOMERS) Partition coefficient: soil/water	2,73
ROSIN Partition coefficient: soil/water	3,7289
4-METHYLPENTAN-2-ONE Partition coefficient: soil/water	2,008

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

Label: 3

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, 1263 IATA:

14.2. UN proper shipping name

ADR / RID:	PAINT
IMDG:	PAINT (ZINC OXIDE)
IATA:	PAINT

14.3. Transport hazard class(es)



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IMDG:	Class: 3	Label: 3	*	
IATA:	Class: 3	Label: 3	8	
4.4. Packing group				
ADR / RID, IMDG, IATA:	III			
4.5. Environmental h	azards			
ADR / RID:	Environmentally Hazardous	<		
IMDG:	Marine Pollutant	<		
IATA:	NO		\checkmark	
or Air transport, envire	onmentally hazardous	s mark is only mandatory for UN 3077 and UI	N 3082.	
4.6. Special precauti	ons for user			
ADR / RID:		HIN - Kemler: 30	Limited Quantities: 5	Tunnel restriction
		Special Provision: -	L	code: (D/E)
IMDG:		EMS: F-E, <u>S-E</u>	Limited Quantities: 5	
IATA:		Cargo:	L Maximum quantity: 220	Packaging instructions: 366
		Pass.:	Maximum quantity: 60 L	Packaging instructions: 355
		Special Instructions:	A3, A72, A192	000
4.7. Transport in bul	k according to Anne	ex II of Marpol and the IBC Code		
•	-			
formation not relevan	t			
SECTION 15	Pogulatory inf	ormation		
SECTION 15.	Regulatory inf	ormation		

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product Point

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Substances in Candidate List (Art. 59 REACH)

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On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H300	Fatal if swallowed.

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H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H312+H332	Harmful in contact with skin or if inhaled.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
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.

I EGEND.

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- **OEL: Occupational Exposure Level**
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

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- Regulation (EC) 1272/2008 (ICLP) of the European Parliament
 Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
 Regulation (EU) 2015/830 of the European Parliament
- Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament

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10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament

- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP) 13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition

Handling Chemical Safety

INRS - Fiche Toxicologique (toxicological sheet)

- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website

Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified: 02 / 03.

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