

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

1.1. Product identifier

Product form : Mixture
Product name : SkyMark SM-IV

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
Use of the substance/mixture : Hydraulic fluids

1.2.2. Uses advised against

Restrictions on use : No data available

1.3. Details of the supplier of the safety data sheet

K&M Industry LLC
5512 E Kelso St.
85712 Tucson – AZ
USA
T 520.975.7286
contact@strutwipe.com

1.4. Emergency telephone number

Emergency number : 520.975.7286

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 2 H315

Carcinogenicity, Category 2 H351

Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412

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

Adverse physicochemical, human health and environmental effects

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

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

GHS08

Signal word (CLP) :

Warning

Contains :

Tributyl phosphate

Hazard statements (CLP) :

H315 - Causes skin irritation.

H351 - Suspected of causing cancer.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

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P264 - Wash hands, forearms and face thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective clothing, eye protection, face protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.

2.3. Other hazards

Contains no PBT/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 is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Tributyl phosphate substance with national workplace exposure limit(s) (AT, BE, DE, DK, ES, FI, FR, GB, GR, HR, IE, PT, RO, SI)	CAS-No.: 126-73-8 EC-No.: 204-800-2 EC Index-No.: 015-014-00-2	55 – 65	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Carc. 2, H351
Dibutyl phenyl phosphate substance with national workplace exposure limit(s) (AT, BE, DK, ES, IE, LT, LV, PT)	CAS-No.: 2528-36-1 EC-No.: 219-772-7	20 – 30	Not classified
2-ethylhexyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate	CAS-No.: 62256-00-2 EC-No.: 263-471-3	< 10	Skin Sens. 1B, H317
2,6-Di-tert-butyl-p-cresol substance with national workplace exposure limit(s) (AT, BE, BG, DE, DK, ES, FI, FR, GB, GR, HR, IE, PT, SI)	CAS-No.: 128-37-0 EC-No.: 204-881-4	1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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 after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.

First-aid measures after skin contact : Wash skin with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell. Rinse mouth out with water.

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

Symptoms/effects after inhalation : No adverse effects expected.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : May cause slight irritation.

Symptoms/effects after ingestion : Possible irritation of mucous membranes and digestive tract, nausea, vomiting.

Chronic symptoms : Suspected of causing cancer.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing. Do not breathe mist, spray, vapours. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

6.1.2. For emergency responders

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

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Collect all waste in suitable and labelled containers and dispose according to local legislation.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe mist, spray, vapours. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Tributyl phosphate (126-73-8)	
Austria - Occupational Exposure Limits	
Local name	Tri-n-butylphosphat
MAK (OEL TWA)	2.5 mg/m ³
MAK (OEL STEL)	5 mg/m ³ (4x 15(Miw) min)
Remark	H. Krebszeugend: III B
Regulatory reference	BGBI. II Nr. 156/2021
Belgium - Occupational Exposure Limits	
Local name	Phosphate de tributyle # Tributylfosfaat
OEL TWA	2.2 mg/m ³
OEL TWA [ppm]	0.2 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Croatia - Occupational Exposure Limits	
Local name	Tributil-fosfat, svi izomeri
GVI (OEL TWA) [1]	5 mg/m ³
KGVI (OEL STEL)	5 mg/m ³
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
Denmark - Occupational Exposure Limits	
Local name	Tributylphosphat
OEL TWA [1]	2.5 mg/m ³
OEL TWA [2]	0.2 ppm
Remark	K (betyder, at stoffet anses for at kunne være kræftfremkaldende)
Regulatory reference	BEK nr 202 af 21/02/2023
Finland - Occupational Exposure Limits	
Local name	Tributyylifosfaatti
HTP (OEL TWA) [1]	2.5 mg/m ³
HTP (OEL TWA) [2]	0.2 ppm
HTP (OEL STEL)	5 mg/m ³
HTP (OEL STEL) [ppm]	0.4 ppm
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	Phosphate de tributyle
VME (OEL TWA)	2.5 mg/m ³
VME (OEL TWA) [ppm]	0.2 ppm
Remark	Valeurs recommandées/admises; substance classée cancérogène de catégorie 2
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)

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Tributyl phosphate (126-73-8)	
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Tributylphosphat
AGW (OEL TWA) [1]	11 mg/m ³
AGW (OEL TWA) [2]	1 ppm
Peak exposure limitation factor	2(II)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden; H - hautresorptiv; 11 - Summe aus Dampf und Aerosolen
Regulatory reference	TRGS900
Greece - Occupational Exposure Limits	
Local name	Φωσφορικός εστέρας του τριβουτυλίου
OEL TWA	5 mg/m ³
OEL TWA [ppm]	0.4 ppm
OEL STEL	5 mg/m ³
OEL STEL [ppm]	0.4 ppm
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Ireland - Occupational Exposure Limits	
Local name	Tributyl phosphate, all isomers
OEL TWA [1]	5 mg/m ³
Regulatory reference	Chemical Agents Code of Practice 2021
Portugal - Occupational Exposure Limits	
Local name	Tributilfosfato
OEL TWA [ppm]	5 ppm FIV (Fração inalável e vapor)
Remark	A3 (Agente carcinogénico confirmado nos animais de laboratorio con relevância desconhecida no Homem); IBEA (Índice biológico de exposição)
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Tributilfosfat
OEL TWA	2 mg/m ³
OEL STEL	5 mg/m ³
Remark	C2 - susceptibil de a provoca apariția cancerului
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021)
Slovenia - Occupational Exposure Limits	
Local name	tributilfosfat
OEL TWA	11 mg/m ³
OEL TWA [ppm]	1 ppm
OEL STEL	22 mg/m ³
OEL STEL [ppm]	2 ppm

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Tributyl phosphate (126-73-8)	
Remark	K (Lastnost lažjega prehajanja snovi v organizem skozi kožo), Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti)
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Spain - Occupational Exposure Limits	
Local name	Fosfato de tributilo
VLA-ED (OEL TWA) [1]	2.2 mg/m ³
VLA-ED (OEL TWA) [2]	0.2 ppm
Remark	VLBa (Agente químico al que se aplica el Valor Límite Biológico de los inhibidores de la acetilcolinesterasa).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2023. INSHT
United Kingdom - Occupational Exposure Limits	
Local name	Tributyl phosphate
WEL TWA (OEL TWA) [1]	5 mg/m ³ all isomers
WEL STEL (OEL STEL)	5 mg/m ³ all isomers
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
USA - ACGIH - Occupational Exposure Limits	
Local name	Tributyl phosphate
ACGIH OEL TWA	5 mg/m ³ (IFV - Inhalable fraction and vapor)
Remark (ACGIH)	TLV® Basis: Bladder, eye, & URT irr. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEIc
Regulatory reference	ACGIH 2023
Dibutyl phenyl phosphate (2528-36-1)	
Austria - Occupational Exposure Limits	
Local name	Di-n-butylphenylphosphat
MAK (OEL TWA)	3.5 mg/m ³
MAK (OEL TWA) [ppm]	0.3 ppm
Remark	H
Regulatory reference	BGBl. II Nr. 156/2021
Belgium - Occupational Exposure Limits	
Local name	Phosphate de dibutyle et de phényle # Dibutylfenylfosfaat
OEL TWA	3.6 mg/m ³
OEL TWA [ppm]	0.3 ppm
Remark	D: la mention "D" signifie que la résorption de l'agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l'exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l'agent dans l'air. # D: de vermelding "D" betekent dat de opname van het agens via de huid, de slijmvliezen of de ogen een belangrijk deel van de totale blootstelling vormt. Deze opname kan het gevolg zijn van zowel direct contact als zijn aanwezigheid in de lucht.
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Denmark - Occupational Exposure Limits	
Local name	Dibutylphenylphosphat
OEL TWA [1]	3.5 mg/m ³

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Dibutyl phenyl phosphate (2528-36-1)	
OEL TWA [2]	0.3 ppm
Remark	H (betyder, at stoffet kan optages gennem huden)
Regulatory reference	BEK nr 202 af 21/02/2023
Ireland - Occupational Exposure Limits	
Local name	Dibutyl phenyl phosphate
OEL TWA [1]	3.5 mg/m ³
OEL TWA [2]	0.3 ppm
Remark	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body)
Regulatory reference	Chemical Agents Code of Practice 2021
Latvia - Occupational Exposure Limits	
Local name	Dibutilfenilfosfāts (fosforskābes dibutilfenilesteris)
OEL TWA	0.1 mg/m ³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325
Lithuania - Occupational Exposure Limits	
Local name	Dibutilfenilfosfatas
IPRV (OEL TWA)	0.1 mg/m ³
Remark	O (medžiaga į organizmą gali prasiskverbti pro nepažeistą odą)
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Portugal - Occupational Exposure Limits	
Local name	Fosfato de dibutilfenilo
OEL TWA [ppm]	0.3 ppm
Remark	P (Toxicidade percutânea); IBEA (Índice biológico de exposição)
Regulatory reference	Norma Portuguesa NP 1796:2014
Spain - Occupational Exposure Limits	
Local name	Fosfato de dibutilfenilo
VLA-ED (OEL TWA) [1]	3.6 mg/m ³
VLA-ED (OEL TWA) [2]	0.3 ppm
Remark	Vía dérmica (Indica que, en las exposiciones a esta sustancia, la aportación por la vía cutánea puede resultar significativa para el contenido corporal total si no se adoptan medidas para prevenir la absorción. En estas situaciones, es aconsejable la utilización del control biológico para poder cuantificar la cantidad global absorbida del contaminante), VLBa (Agente químico al que se aplica el Valor Límite Biológico de los inhibidores de la acetilcolinesterasa).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2023. INSHT
USA - ACGIH - Occupational Exposure Limits	
Local name	Dibutyl phenyl phosphate
ACGIH OEL TWA [ppm]	0.3 ppm
Remark (ACGIH)	TLV® Basis: Cholinesterase inhib; URT irr. Notations: Skin; BEIc
Regulatory reference	ACGIH 2023

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2,6-Di-tert-butyl-p-cresol (128-37-0)	
Austria - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-kresol (Butylhydroxytoluol)
MAK (OEL TWA)	10 mg/m ³
Regulatory reference	BGBI. II Nr. 156/2021
Belgium - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-crésol (vapeur et aérosol) # Di-tert-butyl-4-methylfenol (damp en aérosol)
OEL TWA	2 mg/m ³
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Bulgaria - Occupational Exposure Limits	
Local name	Дибутилпаракрезол
OEL TWA	10 mg/m ³
OEL STEL	50 mg/m ³
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.)
Croatia - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-krezol
GVI (OEL TWA) [1]	10 mg/m ³
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
Denmark - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-cresol (Butylhydroxytoluen)
OEL TWA [1]	10 mg/m ³
Regulatory reference	BEK nr 202 af 21/02/2023
Finland - Occupational Exposure Limits	
Local name	2,6-Di-tert-butylyli-p-kresoli
HTP (OEL TWA) [1]	10 mg/m ³
HTP (OEL STEL)	20 mg/m ³
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveystieteiden ministeriö)
France - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-crésol
VME (OEL TWA)	10 mg/m ³
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	2,6-Di-tert-butyl-p-kresol
AGW (OEL TWA) [1]	10 mg/m ³ (E)
Peak exposure limitation factor	4(II)

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2,6-Di-tert-butyl-p-cresol (128-37-0)	
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden; 11 - Summe aus Dampf und Aerosolen
Regulatory reference	TRGS900
Greece - Occupational Exposure Limits	
Local name	Βουτυλο-υπροξυ-τολουόλιο
OEL TWA	10 mg/m ³
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Ireland - Occupational Exposure Limits	
Local name	2,6-Ditertiary-butyl-para-cresol [Butylated hydroxytoluene (BHT)]
OEL TWA [1]	2 mg/m ³
Regulatory reference	Chemical Agents Code of Practice 2021
Portugal - Occupational Exposure Limits	
Local name	Hidroxitoluenobutilado (2,6-Di-terc-butil-p-cresol) (BHT)
OEL TWA	2 mg/m ³ FIV (Fração inalável e vapor)
Remark	A4 (Agente não classificável como carcinogénico no Homem)
Regulatory reference	Norma Portuguesa NP 1796:2014
Slovenia - Occupational Exposure Limits	
Local name	2,6-di-terc-butil-p-krezol
OEL TWA	10 mg/m ³
OEL STEL	40 mg/m ³
Remark	Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti)
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Spain - Occupational Exposure Limits	
Local name	2,6-Diterc-butil-p-cresol
VLA-ED (OEL TWA) [1]	10 mg/m ³
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2023. INSHT
United Kingdom - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-cresol
WEL TWA (OEL TWA) [1]	10 mg/m ³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
USA - ACGIH - Occupational Exposure Limits	
Local name	Butylated hydroxytoluene
ACGIH OEL TWA	2 mg/m ³ (IFV - Inhalable fraction and vapor)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2023

8.1.2. Recommended monitoring procedures

No additional information available

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8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Purple.
Appearance	: Oily liquid.
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: -62 °C
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Explosive properties	: Not explosive.
Oxidising properties	: Not oxidising.
Lower explosion limit	: Not available
Upper explosion limit	: Not available

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Flash point	: 174 °C
Auto-ignition temperature	: 469 °C
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: 3.83 mm ² /s (99 °C)
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 0.27 hPa
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 1.0111
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Tributyl phosphate (126-73-8)	
LD50 oral rat	1552 mg/kg
LD50 dermal rabbit	> 3100 mg/kg
LC50 Inhalation - Rat	> 4.242 mg/l
LC50 Inhalation - Rat (Dust/Mist)	> 4.242 mg/l

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Dibutyl phenyl phosphate (2528-36-1)	
LD50 oral rat	2620 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
2-ethylhexyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate (62256-00-2)	
LD50 oral rat	2000 mg/kg
2,6-Di-tert-butyl-p-cresol (128-37-0)	
LD50 oral rat	> 6000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	> 2 mg/l
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

Tributyl phosphate (126-73-8)	
LC50 - Fish [1]	17 mg/l Source: EHCA
EC50 - Crustacea [1]	3.65 mg/l
EC50 - Other aquatic organisms [1]	4.6 mg/l Test organisms (species): Gammarus sp.
EC50 72h - Algae [1]	2.8 mg/l Source: EHCA
EC50 72h - Algae [2]	2.8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [1]	1.3 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
ErC50 algae	2.8 mg/l
NOEC (chronic)	1.3 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
2-ethylhexyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate (62256-00-2)	
LC50 - Fish [1]	2.9 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	6.5 mg/l Test organisms (species): Daphnia magna

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2-ethylhexyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate (62256-00-2)

EC50 72h - Algae [1]	2.6 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
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2,6-Di-tert-butyl-p-cresol (128-37-0)

LC50 - Fish [1]	> 0.57 mg/l Source: EHCA
EC50 - Crustacea [1]	0.48 mg/l Source: ECHA
EC50 72h - Algae [1]	> 0.4 mg/l Source: ECHA
LOEC (chronic)	1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.023 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

2,6-Di-tert-butyl-p-cresol (128-37-0)

Biochemical oxygen demand (BOD)	0.51 g O ₂ /g substance
Chemical oxygen demand (COD)	2.27 g O ₂ /g substance
ThOD	2.977 g O ₂ /g substance

12.3. Bioaccumulative potential

Tributyl phosphate (126-73-8)

BCF - Fish [1]	5.5 – 20
Partition coefficient n-octanol/water (Log Pow)	4 Source: ECHA

Dibutyl phenyl phosphate (2528-36-1)

Partition coefficient n-octanol/water (Log Pow)	4.27
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2,6-Di-tert-butyl-p-cresol (128-37-0)

Partition coefficient n-octanol/water (Log Pow)	5.1 Source: HSDB
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12.4. Mobility in soil

Tributyl phosphate (126-73-8)

Surface tension	25.1 mN/m
Organic Carbon Normalized Adsorption Coefficient (Log K _{oc})	3.241 – 3.371

2,6-Di-tert-butyl-p-cresol (128-37-0)

Organic Carbon Normalized Adsorption Coefficient (Log K _{oc})	4.4
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12.5. Results of PBT and vPvB assessment

Component

Tributyl phosphate (126-73-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2,6-Di-tert-butyl-p-cresol (128-37-0)	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

12.6. Endocrine disrupting properties

No additional information available

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12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

SECTION 14: Transport information

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

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

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no 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 no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

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

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (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 (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)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration

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Abbreviations and acronyms:	
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
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
Carc. 2	Carcinogenicity, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1B	Skin sensitisation, category 1B

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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