

## Skydrol® PE-5

Version Revision Date: SDS Number: Date of last issue: 03.08.2020 4.3 03.01.2023 150000093410 Date of first issue: 01.03.2016

PRD SDSIN / EN / 0001

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Skydrol® PE-5

Product code 34103-00, P3410305, P3410304, P3410302, P3410301,

P3410306, P3410313, P3410312, P3410303, P3410311,

P3410309, E3410301

Manufacturer or supplier's details

Company Eastman Chemical Company

200 South Wilcox Drive Address

Kingsport TN 37660-5280

Telephone (423) 229-2000

Emergency telephone number : 000 800 100 7479, NCEC +65 3158 1198, International +65

6262-6462

Recommended use of the chemical and restrictions on use

Recommended use : Hydraulic fluids

Restrictions on use None known.

### 2. HAZARDS IDENTIFICATION

### Manufacture, Storage and Import of Hazardous Chemicals Rules 1989

#### Classification

**GHS** Classification

Acute toxicity (Oral) Category 4

Skin corrosion/irritation Category 2

Carcinogenicity Category 2

Reproductive toxicity (Oral) Category 2

Specific target organ toxicity - :

repeated exposure

Category 2 (Adrenal gland)

Short-term (acute) aquatic

hazard

Category 3

Long-term (chronic) aquatic : Category 2

hazard



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**GHS** label elements

Hazard pictograms







Signal word : Warning

Hazard statements : H302 Harmful if swallowed.

H315 Causes skin irritation.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child if

swallowed.

H373 May cause damage to organs (Adrenal gland) through

prolonged or repeated exposure. H402 Harmful to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

#### Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read

and understood.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protec-

tion/ face protection/ hearing protection.

### Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON

CENTER/ doctor if you feel unwell. Rinse mouth.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P308 + P313 IF exposed or concerned: Get medical advice/

attention.

P332 + P313 If skin irritation occurs: Get medical advice/ atten-

tion.

P362 + P364 Take off contaminated clothing and wash it before

reuse.

P391 Collect spillage.

### Storage:

P405 Store locked up.

### Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards which do not result in classification

None known.



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#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Components

Chemical name	CAS-No.	Concentration (% w/w)
Tributyl phosphate	126-73-8	>= 50 - < 70
Triisobutyl phosphate	126-71-6	>= 10 - < 20
Phenol, isopropylated, phosphate (3:1)	68937-41-7	>= 2.5 - < 10
7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 2-ethylhexyl ester	62256-00-2	>= 1 - < 10
triphenylphosphate	115-86-6	>= 1 - < 2.5
butylated hydroxytoluene	128-37-0	>= 0.25 - < 1

Eastman is committed to the safety, health and environment of our employees, our customers, and the communities we operate within. As part of this commitment, Eastman's Safety Data Sheets (SDS) are prepared in accordance with all applicable national and local regulations. The compositions of our documents reflect these requirements which include, but are not limited to, requirements under the Globally Harmonized System of Classification and Labeling (GHS). These compositions commonly involve the use of ranges versus specific analytical values. If you require a composition that is more specific, please refer to the Certificate of Analysis, sales specification, or contact your Customer Service Representative.

### 4. FIRST AID MEASURES

If inhaled : Move to fresh air.

Call a physician or poison control center immediately.

In case of skin contact : Wash off with soap and plenty of water.

Wash contaminated clothing before re-use.

Get medical attention.

Thoroughly clean shoes before reuse.

In case of eye contact : In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice.

If swallowed : Seek medical advice.

Most important symptoms and effects, both acute and

delayed

Harmful if swallowed. Causes skin irritation.

Suspected of causing cancer.

Suspected of damaging fertility or the unborn child if swal-

lowed.

May cause damage to organs through prolonged or repeated

exposure.

Notes to physician : Treat symptomatically.

#### 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO2)

Dry chemical



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Water spray

Unsuitable extinguishing

media

Do not use a solid water stream as it may scatter and spread

fire

Hazardous combustion prod-

ucts

Carbon monoxide
Carbon dioxide (CO2)
oxides of phosphorus

Specific extinguishing meth-

ods

None known.

Special protective equipment

for firefighters

Wear an approved positive pressure self-contained breathing

apparatus in addition to standard fire fighting gear.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec: : tive equipment and emer-

gency procedures

Wear appropriate personal protective equipment.

Avoid breathing mist or vapours.

Local authorities should be advised if significant spillages

cannot be contained.

Environmental precautions : Prevent further leakage or spillage if safe to do so.

Clear up spills immediately and dispose of waste safely.

Avoid release to the environment.

Methods and materials for

containment and cleaning up

Prevent runoff from entering drains, sewers, or streams. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local /

national regulations (see section 13).

#### 7. HANDLING AND STORAGE

Advice on protection against

fire and explosion

None known.

Advice on safe handling : Avoid inhalation of vapor or mist.

Do not get on skin or clothing.

Avoid contact with skin, eyes and clothing.

Do not swallow.

Ensure adequate ventilation. Wash thoroughly after handling.

Conditions for safe storage : Keep tightly closed.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type	Control parame-	Basis
		(Form of	ters / Permissible	



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		exposure)	concentration	
Tributyl phosphate	126-73-8	TWA	0.2 ppm 2.5 mg/m3	IN OEL
		TWA (Inhalable fraction and vapor)	5 mg/m3	ACGIH
triphenylphosphate	115-86-6	TWA	3 mg/m3	ACGIH
butylated hydroxytoluene	128-37-0	TWA (Inhalable fraction and vapor)	2 mg/m3	ACGIH

**Engineering measures** 

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Personal protective equipment

Respiratory protection

Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

worn

Hand protection

Remarks : Contact the glove manufacturer for specific advice on glove

selection and breakthrough times for your use conditions. After contamination with product change the gloves immediately and dispose of them according to relevant national and

local regulations.

Eye protection : Wear safety glasses with side shields (or goggles).

Skin and body protection : Wear suitable protective clothing.

Protective measures : Remove respiratory and skin/eye protection only after vapors

have been cleared from the area.

Ensure that eye flushing systems and safety showers are

located close to the working place.

Use personal protective equipment as required.



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Hygiene measures

Handle in accordance with good industrial hygiene and safety

practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : oily

Colour : purple

Odour : odourless

Odour Threshold : not determined

pH : not determined

Melting point/range : < -62 °C

Boiling point/boiling range : not determined

Flash point : 171 °C

Method: Cleveland open cup

Evaporation rate : not determined

Flammability (solid, gas) : Not applicable

Upper explosion limit / Upper

flammability limit

not determined

Lower explosion limit / Lower

flammability limit

not determined

Vapour pressure : 0.4 hPa (25 °C)

Relative vapour density : not determined

Relative density : 0.9956 (25  $^{\circ}$ C)

Density : 995 kg/m3 (25 °C)

Auto-ignition temperature : 424 °C

Method: ASTM D2155

Decomposition temperature : not determined

Viscosity

Viscosity, dynamic : not determined



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Viscosity, kinematic

9.02 - 10.02 mm2/s (38 °C)

Explosive properties

Not classified

Oxidizing properties

Not classified

10. STABILITY AND REACTIVITY

Reactivity None reasonably foreseeable.

Chemical stability Stable under normal conditions.

Possibility of hazardous reac-

tions

Stable

Conditions to avoid None known.

Incompatible materials Strong oxidizing agents

Hazardous decomposition

products

Carbon dioxide (CO2)

Carbon monoxide

#### 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Harmful if swallowed.

**Product:** 

Acute oral toxicity Remarks: Harmful if swallowed.

Acute inhalation toxicity Remarks: No significant adverse effects were reported

Acute dermal toxicity Remarks: No significant adverse effects were reported

**Components:** 

Tributyl phosphate:

LD50 Oral (Rat, male and female): 1,553 mg/kg Acute oral toxicity

Assessment: Harmful if swallowed.

LD50 Oral (Rat, male and female): 1,400 mg/kg

LC50 (Rat, male and female): > 4.242 mg/l Acute inhalation toxicity

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity LD50 Dermal (Rabbit, male and female): > 3,100 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity



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Triisobutyl phosphate:

Acute inhalation toxicity : LC50 (Rat): > 5.14 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Phenol, isopropylated, phosphate (3:1):

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg

Assessment: The substance or mixture has no acute oral tox-

icity

Acute inhalation toxicity : LC50 (Rat): > 200 mg/m3

Exposure time: 1 h

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 Dermal (Rabbit): > 10,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 2-ethylhexyl ester:

Acute oral toxicity : LD50 Oral (Rat, male and female): 4,470 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit, male and female): > 7,940 mg/kg

triphenylphosphate:

Acute oral toxicity : LD50 Oral (Rat, male): > 6,400 mg/kg

Acute dermal toxicity : LD50 Dermal (Guinea pig, male): > 5,000 mg/kg

butylated hydroxytoluene:

Acute oral toxicity : LD50 Oral (Rat): > 6,000 mg/kg

Acute dermal toxicity : LD50 Dermal (Guinea pig): > 20,000 mg/kg

Skin corrosion/irritation

Causes skin irritation.

**Product:** 

Remarks : Causes skin irritation.



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#### **Components:**

Tributyl phosphate:

Species : Rabbit Exposure time : 4 h

Assessment : Causes skin irritation.

Result : irritating

Triisobutyl phosphate:

Species : Rabbit Exposure time : 4 h

Result : Mild skin irritation

Phenol, isopropylated, phosphate (3:1):

Species : Rabbit
Assessment : Not classified

7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 2-ethylhexyl ester:

Species : Rabbit Exposure time : 24 h

Assessment : Not classified as hazardous.

Result : slight to moderate irritation

triphenylphosphate:

Species : Guinea pig

Remarks : Non-irritating to the skin.

butylated hydroxytoluene:

Species : Rabbit Exposure time : 24 h Result : very slight

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Tributyl phosphate:

Species : Rabbit Exposure time : 24 h

Assessment : Not classified Result : slight irritation

Triisobutyl phosphate:

Species : Rabbit
Assessment : Not classified



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Result : slight

## Phenol, isopropylated, phosphate (3:1):

Species : Rabbit

Assessment : Not classified

Result : none

### 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 2-ethylhexyl ester:

Species : Rabbit Exposure time : 24 h

Assessment : Not classified Result : slight irritation

triphenylphosphate:

Species : Rabbit Result : slight

butylated hydroxytoluene:

Species : Rabbit Result : none

### Respiratory or skin sensitisation

### Skin sensitisation

Not classified based on available information.

### Respiratory sensitisation

Not classified based on available information.

**Product:** 

Test Type : OECD 429: LLNA

Species : Mouse

Result : Not a skin sensitizer.

### **Components:**

### Tributyl phosphate:

Test Type : Skin Sensitization Species : Guinea pig Assessment : Not classified

Result : Does not cause skin sensitization.

Test Type : Skin Sensitization

Species : Humans Assessment : Not classified

Result : Does not cause skin sensitization.

Triisobutyl phosphate:

Test Type : OECD 406: Guinea pig sensitization

Species : Guinea pig



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Method : OECD 406: Guinea pig sensitization
Result : May cause sensitization by skin contact.

7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 2-ethylhexyl ester:

Test Type : Skin Sensitization

Species : Guinea pig

Result : May cause sensitization by skin contact.

butylated hydroxytoluene:

Test Type : Skin sensitization
Species : Guinea pig
Result : non-sensitizing

Germ cell mutagenicity

Not classified based on available information.

**Components:** 

Tributyl phosphate:

Genotoxicity in vitro : Test Type: Mutagenicity - Bacterial

Metabolic activation: +/- activation

Method: Bacterial Reverse Mutation Assay

Result: negative

Test Type: Mutagenicity - Mammalian Metabolic activation: +/- activation

Method: In vitro Mammalian Chromosome Aberration Test

Result: equivocal

Genotoxicity in vivo : Species: Rat (male and female)

Application Route: oral: gavage

Method: Mammalian Bone Marrow Chromosome Aberration

Test

Result: negative

Triisobutyl phosphate:

Genotoxicity in vitro : Test Type: Salmonella typhimurium assay (Ames test)

Metabolic activation: +/- activation

Method: Bacterial Reverse Mutation Assay

Result: negative

Genotoxicity in vivo : Result: negative

7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 2-ethylhexyl ester:

Genotoxicity in vitro : Test Type: Salmonella typhimurium assay (Ames test)

Metabolic activation: +/- activation

Method: Bacterial Reverse Mutation Assay

Result: negative

Test Type: Mutagenicity - Mammalian Metabolic activation: +/- activation



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Method: In vitro Mammalian Chromosome Aberration Test

Result: equivocal

Test Type: Mutagenicity - Mammalian Metabolic activation: +/- activation

Method: In vitro Mammalian Cell Gene Mutation Test

Result: negative

Genotoxicity in vivo : Species: Rat (male and female)

Application Route: intraperitoneal injection

Method: Mammalian Bone Marrow Chromosome Aberration

Test

Result: equivocal

Carcinogenicity

Suspected of causing cancer.

**Components:** 

Tributyl phosphate:

Species : Rat, male and female

Application Route : Ingestion

Method : EPA OTS 798.3300

Remarks : Limited evidence of a carcinogenic effect.

May cause cancer.

Reproductive toxicity

Suspected of damaging fertility or the unborn child if swallowed.

**Components:** 

Phenol, isopropylated, phosphate (3:1):

Effects on fertility : Species: Rat, male and female

Application Route: Oral

General Toxicity - Parent: NOAEL: 25 milligram per kilogram Remarks: Suspected of damaging fertility or the unborn child.

triphenylphosphate:

Reproductive toxicity - As-

sessment

Based on available data, the classification criteria are not met.

STOT - single exposure

Not classified based on available information.

**Components:** 

Tributyl phosphate:

Assessment : Based on available data, the classification criteria are not met.

Triisobutyl phosphate:

Assessment : Not classified



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Phenol, isopropylated, phosphate (3:1):

Remarks : Not classified due to data which are conclusive although insuf-

ficient for classification.

STOT - repeated exposure

May cause damage to organs (Adrenal gland) through prolonged or repeated exposure.

**Components:** 

Tributyl phosphate:

Assessment : Based on available data, the classification criteria are not met.

Triisobutyl phosphate:

Assessment : Not classified

Phenol, isopropylated, phosphate (3:1):

Assessment : May cause damage to organs through prolonged or repeated

exposure.

Repeated dose toxicity

**Components:** 

Tributyl phosphate:

Species : Mouse, male and female

: 75 mg/kg

Application Route : in feed Exposure time : 90 days

Triisobutyl phosphate:

Species : Rat, male

: 68.4 mg/kg : Oral Study : 90 days

Aspiration toxicity

Application Route

Exposure time

Not classified based on available information.

**Product:** 

No aspiration toxicity classification

**Components:** 

Triisobutyl phosphate:

Not classified



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### 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 2-ethylhexyl ester:

Not applicable

Experience with human exposure

**Product:** 

Inhalation Remarks: May cause damage to organs through prolonged or

repeated exposure.

Skin contact Remarks: Causes skin irritation.

Remarks: None known. Eye contact

Ingestion Remarks: Harmful if swallowed.

**Further information** 

**Product:** 

Remarks None known.

12. ECOLOGICAL INFORMATION

**Ecotoxicity** 

**Components:** 

Tributyl phosphate:

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)): 4.2 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 1.8 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC50 (Desmodesmus subspicatus (green algae)): 1.1 mg/l

Exposure time: 72 h

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.82 mg/l Exposure time: 95 d

Species: Oncorhynchus mykiss (rainbow trout)

1.7 mg/l

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 1.3 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Triisobutyl phosphate:

Toxicity to fish EC50 (Danio rerio (zebra fish)): > 12.6 mg/l

Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 24 mg/l



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Toxicity to algae/aquatic

aquatic invertebrates

plants

ErC50 (Pseudokirchneriella subcapitata (algae)): 14.3 mg/l

Exposure time: 72 h

Exposure time: 48 h

EC10 (Pseudokirchneriella subcapitata (algae)): 10.4 mg/l

Exposure time: 72 h

Phenol, isopropylated, phosphate (3:1):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.36 mg/l

Exposure time: 96 h

LC50 (Cyprinodon variegatus (sheepshead minnow)): > 1.3

mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): 1 mg/l

Exposure time: 48 h

LC50 (Mysidopsis bahia (opossum shrimp)): > 1 mg/l

Toxicity to algae/aquatic

plants

NOEC (Desmodesmus subspicatus (green algae)): 0.25 - 2.5

mg/l

Exposure time: 72 h

Test Type: Alga, Growth Inhibition Test

M-Factor (Acute aquatic tox-

icity)

1

M-Factor (Chronic aquatic

toxicity)

: 1

triphenylphosphate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.4 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Americamysis): > 0.18 - < 0.32 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic

plants

NOEC (Pseudokirchneriella subcapitata (algae)): 0.25 mg/l

Exposure time: 72 h

Toxicity to fish (Chronic tox-

icity)

EC10: 0.037 mg/l

Exposure time: 30 d

Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.254 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

butylated hydroxytoluene:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 0.57 mg/l



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Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.48 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (algae)): > 0.24 mg/l

Exposure time: 72 h

NOEC (Pseudokirchneriella subcapitata (algae)): 0.24 mg/l

Exposure time: 72 h

M-Factor (Acute aquatic tox-

icity)

: 1

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.053 mg/l Exposure time: 30 d

Species: Oryzias latipes (Orange-red killifish)

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.069 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic

toxicity)

: 1

### Persistence and degradability

#### **Components:**

Tributyl phosphate:

Biodegradability : Result: Readily biodegradable.

Triisobutyl phosphate:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 70 - 80 %

Exposure time: 28 d

Method: Ready Biodegradability: CO2 Evolution Test

Phenol, isopropylated, phosphate (3:1):

Biodegradability : Remarks: Not readily biodegradable.

7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 2-ethylhexyl ester:

Biodegradability : Concentration: 100 mg/l

Method: Ready Biodegradability: Modified MITI Test (I)

Remarks: Readily biodegradable

triphenylphosphate:

Biodegradability : Result: Readily biodegradable.



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Bioaccumulative potential

Components:

Tributyl phosphate:

Bioaccumulation : Species: Cyprinus carpio (Carp)

Exposure time: 56 d

Bioconcentration factor (BCF): 20 Method: OECD Test Guideline 305

Exposure time: 38 d

Bioconcentration factor (BCF): 35

Partition coefficient: n-

octanol/water

Pow: 10,100

Triisobutyl phosphate:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-

octanol/water

log Pow: 3.72

Phenol, isopropylated, phosphate (3:1):

Bioaccumulation : Remarks: Potential bioaccumulation

triphenylphosphate:

Partition coefficient: n-

log Pow: 4.63

octanol/water

Mobility in soil

**Components:** 

Phenol, isopropylated, phosphate (3:1):

Distribution among environ-

mental compartments

: log Koc: 3.43 - 3.93

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

**International Regulations** 



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 03.01.2023
 150000093410
 Date of first issue: 01.03.2016

PRD SDSIN / EN / 0001

**IATA-DGR** 

UN/ID No. : UN 3082

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.

(triphenyl phosphate)

Class : 9 Packing group : III

Labels : Miscellaneous

Packing instruction (cargo

aircraft)

Packing instruction (passen: 964

ger aircraft)

Remarks : Shipping in package sizes of less than 5 L (liquids) or 5 KG

(solids) may lead to a non-regulated classification.

**IMDG-Code** 

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

964

(triphenyl phosphate)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Remarks : Shipping in package sizes of less than 5 L (liquids) or 5 KG

(solids) may lead to a non-regulated classification.

### Transport in bulk according to IMO instruments

Not applicable for product as supplied.

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 15. REGULATORY INFORMATION

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

The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

AIIC : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory



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TCSI : On the inventory, or in compliance with the inventory

TSCA : All substances listed as active on the TSCA inventory

#### 16. OTHER INFORMATION

Revision Date : 03.01.2023

Date format : dd.mm.yyyy

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

IN OEL : India. Permissible levels of certain chemical substances in

work environment.

ACGIH / TWA : 8-hour, time-weighted average

IN OEL / TWA : Time-Weighted Average Concentration (TWA) (8 hrs.)

AllC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan): ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association: IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods: TECI - Thailand Existing Chemicals Inventory: TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific



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material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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