ARADUR® HY 5731 BD

Version	Revision Date:	SDS Number:	Date of last issue: 19.06.2018
1.1	24.04.2023	400001008057	Date of first issue: 19.06.2018

Print Date 26.03.2024

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

1.1 Product identifier

Trade name : ARADUR® HY 5731 BD

Unique Formula Identifier (UFI) : R2QE-00UJ-000G-VNXR

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

Use of the Substance/Mixture : Component used for the manufacture of electrical insulation parts

1.3 Details of the supplier of the safety data sheet

Company : Huntsman Advanced Materials (Europe) BV
Address : Everslaan 45
3078 Everberg
Belgium
Telephone : +41 61 299 20 41
Telefax : +41 61 299 20 40

E-mail address of person responsible for the SDS : Global_Product_EHS_AdMat@huntsman.com

1.4 Emergency telephone number

Emergency telephone number : Centres Antipoison et de Toxicovigilance:
ANGERS: 02 41 48 21 21
BORDEAUX: 05 56 96 40 80
LILLE: 0 825 812 822
LYON: 04 72 11 69 11
MARSEILLE 04 91 75 25 25
NANCY: 03 83 32 36 36
PARIS: 01 40 05 48 48
RENNES: 02 99 59 22 22
STRASBOURG: 03 88 37 37 37
TOULOUSE: 05 61 77 74 47
EUROPE: +32 35 75 1234
France ORFILA: +33(0)145425959
ASIA: +65 6336-6011
China: +86 20 39377888
+86 532 83889090
India: + 91 22 42 87 5333
Australia: 1800 786 152
New Zealand: 0800 767 437
USA: +1 800-424-9300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Long-term (chronic) aquatic hazard, Category 4	H413: May cause long lasting harmful effects to aquatic life.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements :
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements :

Prevention:
P261 Avoid breathing mist or vapours.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.

Response:
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

Hazardous components which must be listed on the label:
dihydro-3-(tetrapropenyl)furan-2,5-dione

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
dihydro-3-(tetrapropenyl)furan-2,5-dione	26544-38-7 247-781-6	Eye Irrit. 2; H319 Skin Sens. 1A; H317 Aquatic Chronic 4; H413	>= 70 - < 90
Propane-1,2-diol, propoxylated	25322-69-4 Polymer	Acute Tox. 4; H302 Acute toxicity estimate Acute oral toxicity: 500,05 mg/kg	>= 10 - < 20
benzyldimethylamine	103-83-3 203-149-1 612-074-00-7 01-2119529232-48	Flam. Liq. 3; H226 Acute Tox. 4; H302 Acute Tox. 3; H331 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412 Acute toxicity estimate Acute dermal toxicity: 1 477 mg/kg	>= 1 - < 2,5

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Treat symptomatically.
Get medical attention if symptoms occur.

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Avoid inhalation, ingestion and contact with skin and eyes.
No action shall be taken involving any personal risk or without

suitable training.
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

If inhaled	:	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
In case of skin contact	:	If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	:	Immediately flush eye(s) with plenty of water. Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Induce vomiting immediately and call a physician. Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	Exercise caution when using a high volume water jet as it may scatter and spread fire

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal considerations see section 13., See Section 1 for emergency contact information., For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation of susceptible persons. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. Do not breathe vapours or spray mist. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.

Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in properly labelled containers.

Advice on common storage : For incompatible materials please refer to Section 10 of this SDS.

Recommended storage temperature : 2 - 40 °C

Further information on storage stability : Stable under normal conditions.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
benzyldimethylamine	Workers	Inhalation	Long-term systemic effects	4,9 mg/m3
	Workers	Inhalation	Acute systemic effects	9,9 mg/m3
	Workers	Dermal	Long-term systemic effects	1,4 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	2,8 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0,87 mg/m3
	Consumers	Inhalation	Acute systemic effects	1,74 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,5 mg/kg bw/day
	Consumers	Dermal	Acute systemic effects	1 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	0,25 mg/kg bw/day
	Consumers	Oral	Acute systemic effects	0,5 mg/kg bw/day
dihydro-3-	Workers	Dermal	Long-term systemic	0,33 mg/kg

(tetrapropenyl)furan-2,5-dione			effects	bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
benzyldimethylamine	Fresh water	0,005 mg/l
	Marine water	0 mg/l
	Sewage treatment plant	534 mg/l
	Fresh water sediment	0,071 mg/kg dry weight (d.w.)
	Marine sediment	0,007 mg/kg dry weight (d.w.)
	Soil	0,011 mg/kg dry weight (d.w.)
dihydro-3-(tetrapropenyl)furan-2,5-dione	Fresh water	0,02 mg/l
	Remarks:Assessment Factors	
	Marine water	0,002 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	10 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	1,7 mg/kg dry weight (d.w.)
	Remarks:Equilibrium method	
	Marine sediment	0,17 mg/kg dry weight (d.w.)
	Remarks:Equilibrium method	
	Soil	0,2 mg/kg
	Remarks:Equilibrium method	

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection
Material : butyl-rubber
Break through time : > 8 h

Material : Nitrile rubber
Break through time : 10 - 480 min

Material : Ethyl Vinyl Alcohol Laminate (EVAL)
Break through time : > 8 h

Remarks : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Take note of the information given by the producer concerning permeability and break through times,

and of special workplace conditions (mechanical strain, duration of contact).
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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

Filter type : Organic vapour type (A)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	light yellow
Odour	:	slight
Odour Threshold	:	No data is available on the product itself.
pH	:	4 - 5 (20 °C) Concentration: 500 g/l
Melting point/freezing point	:	No data is available on the product itself.
Boiling point	:	> 200 °C
Flash point	:	> 200 °C Method: Pensky-Martens closed cup, closed cup
Flammability (solid, gas)	:	No data is available on the product itself.
Upper explosion limit / Upper flammability limit	:	No data is available on the product itself.
Lower explosion limit / Lower flammability limit	:	No data is available on the product itself.
Vapour pressure	:	No data is available on the product itself.
Relative vapour density	:	No data is available on the product itself.
Relative density	:	No data is available on the product itself.

Density	:	ca. 1 g/cm3 (20 °C)
Solubility(ies)		
Water solubility	:	practically insoluble
Solubility in other solvents	:	No data is available on the product itself.
Partition coefficient: n-octanol/water	:	No data is available on the product itself.
Auto-ignition temperature	:	No data is available on the product itself.
Decomposition temperature	:	> 200 °C
Viscosity		
Viscosity, dynamic	:	ca. 450 mPa.s (25 °C)

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No hazards to be specially mentioned.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Strong acids and strong bases
Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : carbon dioxide
carbon monoxide

SECTION 11: Toxicological information

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

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 2 000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2 000 mg/kg
Method: Calculation method

Components:

dihydro-3-(tetrapropenyl)furan-2,5-dione:

Acute oral toxicity : LD50 (Rat, male): 2 900 mg/kg
Method: OECD Test Guideline 423

Acute inhalation toxicity : LC50 (Rat, male and female): 5300 mg/m3
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity : LD100 (Rabbit): > 6 200 - < 7 500 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Propane-1,2-diol, propoxylated:

Acute oral toxicity : LD50 (Rat): > 500 - 2 000 mg/kg

Acute toxicity estimate: 500,05 mg/kg
Method: Calculation method

Acute dermal toxicity : LD50 (Rabbit): > 3 000 mg/kg

benzyldimethylamine:

Acute oral toxicity : LD50 (Rat, male): 579 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): 2052 mg/m3
Exposure time: 4 h
Test atmosphere: vapour
Assessment: The component/mixture is toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rabbit, male): ca. 1 477 mg/kg

Acute toxicity estimate: 1 477 mg/kg
Method: Calculation method

Skin corrosion/irritation

Components:

dihydro-3-(tetrapropenyl)furan-2,5-dione:

Species	:	Rabbit
Assessment	:	No skin irritation
Result	:	No skin irritation

Propane-1,2-diol, propoxylated:

Species	:	Rabbit
Assessment	:	No skin irritation
Result	:	slight irritation

benzyldimethylamine:

Species	:	Rabbit
Exposure time	:	4 h
Method	:	OECD Test Guideline 404
Result	:	Causes burns.
GLP	:	yes

Serious eye damage/eye irritation

Components:

dihydro-3-(tetrapropenyl)furan-2,5-dione:

Species	:	Rabbit
Assessment	:	Irritating to eyes.
Result	:	Eye irritation
GLP	:	yes

Propane-1,2-diol, propoxylated:

Species	:	Rabbit
Assessment	:	No eye irritation
Result	:	slight irritation

benzyldimethylamine:

Species	:	Rabbit
Assessment	:	Severe eye irritation
Result	:	Severe eye irritation

Respiratory or skin sensitisation

Components:

dihydro-3-(tetrapropenyl)furan-2,5-dione:

Test Type	:	Buehler Test
Exposure routes	:	Skin
Species	:	Guinea pig
Assessment	:	Probability or evidence of high skin sensitisation rate in humans
Method	:	OECD Test Guideline 406
Result	:	Probability or evidence of high skin sensitisation rate in

humans

GLP : no

Remarks : Information given is based on data obtained from similar substances.

Propane-1,2-diol, propoxylated:

Exposure routes : Skin
Species : Humans
Result : Does not cause skin sensitisation.

benzyldimethylamine:

Test Type : Maximisation Test
Exposure routes : Skin
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.
GLP : yes

Germ cell mutagenicity

Components:

dihydro-3-(tetrapropenyl)furan-2,5-dione:

Genotoxicity in vitro : Test Type: reverse mutation assay
Test system: Salmonella tryphimurium and E. coli
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test Type: gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Propane-1,2-diol, propoxylated:

Genotoxicity in vitro : Metabolic activation: Metabolic activation
Result: negative

benzyldimethylamine:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: Chromosome aberration test in vitro
Result: positive
GLP: yes

Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse (male and female)
Cell type: Somatic
Application Route: Oral
Exposure time: 24 h
Dose: 150 mg/kg
Result: negative
GLP: yes

Carcinogenicity

No data available

Reproductive toxicity

Components:

dihydro-3-(tetrapropenyl)furan-2,5-dione:

Effects on fertility : Test Type: Reproduction / Developmental Toxicity Screening Test
Species: Rat, male and female
Application Route: Oral
Dose: 0, 50, 150, 250 mg/kg bw/day
Duration of Single Treatment: 28 - 54 d
Frequency of Treatment: 7 days/week
General Toxicity - Parent: NOAEL: 50 mg/kg body weight
General Toxicity F1: NOAEL: 250 mg/kg body weight
Method: OECD Test Guideline 421
GLP: yes

Effects on foetal development : Test Type: reproductive and developmental toxicity study
Species: Rat, male and female
Application Route: Other

Dose: 0/50/150/250 mg/kg bw/day
Frequency of Treatment: 7 days/week
General Toxicity Maternal: NOAEL: > 250 mg/kg body weight
Method: OECD Test Guideline 421
Result: No teratogenic effects
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

benzyldimethylamine:

Effects on foetal development	:	Test Type: Pre-natal Species: Rat Application Route: Oral Dose: 0,35,75,150 mg/kg bw/d Duration of Single Treatment: 14 d General Toxicity Maternal: NOAEL: 75 mg/kg body weight Developmental Toxicity: NOEL: 150 mg/kg body weight Method: OECD Test Guideline 414 Result: No teratogenic effects GLP: yes

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Repeated dose toxicity

Components:

dihydro-3-(tetrapropenyl)furan-2,5-dione:

Species	:	Rat, male and female
NOAEL	:	50 mg/kg
Application Route	:	oral (gavage)
Exposure time	:	28 - 54 days
Number of exposures	:	daily
Dose	:	50, 150 and 250 mg/kg bw/d
Method	:	OECD Test Guideline 421
GLP	:	yes

Propane-1,2-diol, propoxylated:

Species	:	Rat
NOEL	:	3 %
Application Route	:	Ingestion
Exposure time	:	2 400 h
Method	:	Subchronic toxicity

Species	:	Rat
NOAEL	:	1000 mg/kg/d
Application Route	:	Skin contact
Exposure time	:	2 160 h
Method	:	Subchronic toxicity

benzyldimethylamine:

Species	:	Rat, male and female
NOEL	:	50 mg/kg
Application Route	:	oral (gavage)
Exposure time	:	28 d
Number of exposures	:	7 d
Dose	:	0,50,100,200,400 mg/kg bw/d
Method	:	Subacute toxicity
GLP	:	yes

Species	:	Rat, male and female
NOAEL	:	ca. 150 mg/kg
Application Route	:	oral (gavage)
Exposure time	:	28 d
Number of exposures	:	7 d/w
Dose	:	0,6,30,150 mg/kg bw/d
Method	:	Subacute toxicity
GLP	:	yes

Aspiration toxicity

No data available

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

Experience with human exposure

No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

dihydro-3-(tetrapropenyl)furan-2,5-dione:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
End point: mortality
Exposure time: 96 h
Test Type: static test

Analytical monitoring: no
Test substance: Fresh water
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 202
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae/aquatic plants : ErC50 (Selenastrum capricornutum (green algae)): 160 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no
Test substance: Fresh water
GLP: yes

NOEC (Selenastrum capricornutum (green algae)): 33 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no
Test substance: Fresh water
GLP: yes

Toxicity to microorganisms : EC50 (activated sludge): 800 mg/l
Exposure time: 3 h
Test Type: static test
Analytical monitoring: no
Test substance: Fresh water
Method: OECD Test Guideline 209
GLP: yes

Ecotoxicology Assessment

Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

Propane-1,2-diol, propoxylated:

Toxicity to fish : LC50 (Poecilia reticulata (guppy)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC0 (Desmodesmus subspicatus (green algae)): >= 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (activated sludge): > 1 000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: >= 10 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

benzyldimethylamine:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 37,8 mg/l
End point: mortality
Exposure time: 96 h
Test Type: static test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test Type: static test
Analytical monitoring: yes
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.2.
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 1,34 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.3.
GLP: yes

EC10 (Desmodesmus subspicatus (green algae)): 0,24 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.3.
GLP: yes

Toxicity to microorganisms : EC50 (Pseudomonas putida): 749,6 mg/l
Exposure time: 17 h
Test Type: static test
Analytical monitoring: no
Test substance: Fresh water
Method: DIN 38 412 Part 8
GLP: no

EC10 (Pseudomonas putida): 534 mg/l
Exposure time: 17 h
Test Type: static test
Analytical monitoring: no
Test substance: Fresh water
Method: DIN 38 412 Part 8
GLP: no

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0,789 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test Test substance: Fresh water Method: OECD Test Guideline 211 GLP: yes

Ecotoxicology Assessment

Acute aquatic toxicity	:	Harmful to aquatic life.
Chronic aquatic toxicity	:	Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Components:

dihydro-3-(tetrapropenyl)furan-2,5-dione:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge, non-adapted Concentration: 2 mg/l Result: Not biodegradable Biodegradation: 9,9 % Exposure time: 28 d Method: OECD Test Guideline 301D GLP: yes
Stability in water	:	Degradation half life (DT50): 44 min (25 °C) pH: 7 Method: OECD Test Guideline 111 Remarks: Fresh water

benzyldimethylamine:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge Concentration: 100 mg/l Result: Not readily biodegradable. Biodegradation: 0 - 2 % Exposure time: 28 d Method: OECD Test Guideline 301C

12.3 Bioaccumulative potential

Components:

dihydro-3-(tetrapropenyl)furan-2,5-dione:

Partition coefficient: n-octanol/water	:	log Pow: >= 4,39 (22 °C) pH: 7 Method: OECD Test Guideline 107 GLP: yes

benzyldimethylamine:

Bioaccumulation	:	Species: Cyprinus carpio (Carp) Exposure time: 42 d Bioconcentration factor (BCF): 2,1 - 22 Test substance: Fresh water Method: flow-through test Remarks: Bioaccumulation is unlikely. Species: Cyprinus carpio (Carp) Exposure time: 14 d Bioconcentration factor (BCF): 2,1 - 6,4 Test substance: Fresh water Method: flow-through test Remarks: Bioaccumulation is unlikely.
Partition coefficient: n-octanol/water	:	log Pow: 1,98 pH: 13

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

12.7 Other adverse effects

Product:

Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. May cause long lasting harmful effects to aquatic life.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Dispose of contents and container in accordance with all local, regional, national and international regulations. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number or ID number

UNRTDG : Not regulated as dangerous goods
ADN : Not regulated as dangerous goods
ADR : Not regulated as dangerous goods
RID : Not regulated as dangerous goods
IMDG : Not regulated as dangerous goods
IATA : Not regulated as dangerous goods

14.2 UN proper shipping name

UNRTDG : Not regulated as dangerous goods
ADN : Not regulated as dangerous goods
ADR : Not regulated as dangerous goods
RID : Not regulated as dangerous goods
IMDG : Not regulated as dangerous goods
IATA : Not regulated as dangerous goods

14.3 Transport hazard class(es)

ADN : Not regulated as dangerous goods
ADR : Not regulated as dangerous goods
RID : Not regulated as dangerous goods
IMDG : Not regulated as dangerous goods
IATA : Not regulated as dangerous goods

14.4 Packing group

ADN : Not regulated as dangerous goods
ADR : Not regulated as dangerous goods
RID : Not regulated as dangerous goods
IMDG : Not regulated as dangerous goods
IATA (Cargo) : Not regulated as dangerous goods
IATA (Passenger) : Not regulated as dangerous goods

14.5 Environmental hazards

Not regulated as dangerous goods

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 75, 3 If you intend to use this product as tattoo ink, please contact your vendor.
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.		Not applicable
Occupational Illnesses (R-461-3, France)	:	84

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

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
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory

IECSC	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	All substances listed as active on the TSCA inventory

Inventories

AICS (Australia), AIIC (Australia), DSL (Canada), IECSC (China), ENCS (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (United States of America (USA))

15.2 Chemical safety assessment

Chemical Safety Assessments for all substances in this product are either Complete or Not applicable.

SECTION 16: Other information

Full text of H-Statements

H226	:	Flammable liquid and vapour.
H302	:	Harmful if swallowed.
H312	:	Harmful in contact with skin.
H314	:	Causes severe skin burns and eye damage.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H331	:	Toxic if inhaled.
H412	:	Harmful to aquatic life with long lasting effects.
H413	:	May cause long lasting harmful effects to aquatic life.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Corr.	:	Skin corrosion
Skin Sens.	:	Skin sensitisation

Further information

Classification of the mixture:		**Classification procedure:**
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 4	H413	Calculation method

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