according to Regulation (EC) No. 1907/2006



# **ARADUR® HY 5726 BD**

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

### 1.1 Product identifier

Trade name : ARADUR® HY 5726 BD

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

Use of the : Component used for the manufacture of electrical insulation

Substance/Mixture 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 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)

Serious eye damage, Category 1 H318: Causes serious eye damage.

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Respiratory sensitisation, Category 1 H334: May cause allergy or asthma symptoms or

breathing difficulties if inhaled.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

## 2.2 Label elements

### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :





Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H334 May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

Precautionary statements Prevention:

P261 Avoid breathing mist or vapours.

P280 Wear protective gloves/ eye protection/ face protection.

P284 Wear respiratory protection.

Response:

P304 + P340 IF INHALED: Remove person to fresh air and

keep comfortable for breathing.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a

POISON CENTER/ doctor.

P342 + P311 If experiencing respiratory symptoms: Call a

POISON CENTER/ doctor.

# Hazardous components which must be listed on the label:

hexahydromethylphthalic anhydride cyclohexane-1,2-dicarboxylic anhydride tetrahydromethylphthalic anhydride

#### 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

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# **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

### **Hazardous components**

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concent ration (% w/w)
hexahydromethylphthalic anhydride	25550-51-0 247-094-1 607-241-00-6 01-2119510879-29	Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1; H317	>= 50 - < 70
cyclohexane-1,2-dicarboxylic anhydride	85-42-7 201-604-9 607-102-00-X 01-2119486666-21	Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1; H317	>= 10 - < 20
tetrahydromethylphthalic anhydride	11070-44-3 234-290-7 607-240-00-0 01-2119488054-36	Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1; H317	>= 10 - < 20
1-methylimidazole	616-47-7 210-484-7 613-035-00-7 01-2119979544-23	Acute Tox. 4; H302 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Repr. 2; H361d Acute toxicity estimate Acute oral toxicity: 1 144 mg/kg Acute dermal toxicity: 400 mg/kg	>= 0,1 - < 1

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.

Consult a physician.

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.

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If inhaled : Call a physician or poison control centre immediately.

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 : Small amounts splashed into eyes can cause irreversible

tissue damage and blindness.

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

of water and seek medical advice.

Continue rinsing eyes during transport to hospital.

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. Take victim immediately to hospital.

# 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

according to Regulation (EC) No. 1907/2006



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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.

Ensure adequate ventilation.

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/dust.

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.

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To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.

Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being

used.

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. Observe label precautions. Keep in properly labelled

containers.

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

SDS.

Further information on

storage stability

Stable under normal conditions.

Recommended storage

temperature

2 - 40 °C

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	Value
			effects	
1-methylimidazole	Workers	Inhalation	Systemic effects,	1,47 mg/m3
			Long-term exposure	
	Workers	Dermal	Systemic effects,	0,42 mg/kg
			Long-term exposure	bw/day

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

Substance name	Environmental Compartment	Value	
cyclohexane-1,2-dicarboxylic	Fresh water	90,5 μg/l	
anhydride		. •	
	Remarks:Assessment Factors		
	Marine water	9,05 μg/l	

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	Remarks: Assessment Factors			
	Sewage treatment plant	10000 μg/l		
	Remarks:Assessment Factors	, , ,		
	Fresh water sediment	0,445 mg/kg		
	Remarks:Equilibrium method	1 / 3 3		
	Marine sediment	0,044 mg/kg		
	Remarks:Equilibrium method			
	Soil	0,801 mg/kg dry weight (d.w.)		
	Remarks:Equilibrium method	Weight (d.w.)		
	Secondary Poisoning	20 mg/kg		
tetrahydromethylphthalic anhydride	Fresh water	2 mg/l		
	Remarks:Assessment Factors			
	Marine water	0,2 mg/l		
	Remarks:Assessment Factors	1 2		
	Intermittent use/release	0,79 mg/l		
	Remarks:Assessment Factors	, ,		
	Fresh water sediment	46,6 mg/kg		
	Remarks:Equilibrium method			
	Marine sediment	4,66 mg/kg		
	Remarks:Equilibrium method			
	Sewage treatment plant	0,699 mg/l		
	Remarks:Assessment Factors	, ,		
	Soil	11,5 mg/kg		
	Remarks:Equilibrium method			
1-methylimidazole	Fresh water	0,1 mg/l		
•	Remarks: Assessment Factors	1 7 9		
	Marine water	0,01 mg/l		
	Remarks: Assessment Factors	1 / 3		
	Freshwater - intermittent	1 mg/l		
	Remarks:Assessment Factors			
	Sewage treatment plant	590 mg/kg		
	Remarks: Assessment Factors			
	Fresh water sediment	6,95 mg/kg		
	Remarks:Equilibrium method			
	Marine sediment	0,695 mg/kg		
	Remarks:Equilibrium method	i s,sss mg/ng		
	Soil	1,26 mg/kg		
	Remarks:Equilibrium method	·,== ····\ <del>g</del> ,··\ <del>g</del>		

# 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 : Solvent-resistant gloves (butyl-rubber)

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

Remarks : 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 : In the case of vapour formation use a respirator with an

approved filter.

### **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 : No data is available on the product itself.

Melting point/freezing point : No data available

Initial boiling point and boiling

range

: No data available

Flash point : ca. 145 °C

Method: Pensky-Martens 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 : ca. 1,17 - 1,2 (20 °C)

Density : ca. 1,17 g/cm3 (20 °C)

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Solubility(ies)

Water solubility : No data is available on the product itself.

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 : No data is available on the product itself.

Viscosity

Viscosity, dynamic : ca. 70 mPa.s (25 °C)

9.2 Other information

Explosive properties : No data is available on the product itself.

Oxidizing properties : No data is available on the product itself.

Burning rate : No data is available on the product itself.

Evaporation rate : No data is available on the product itself.

Molecular weight : 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

Strong bases

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition : carbon dioxide

products carbon monoxide

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## **SECTION 11: Toxicological information**

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

### **Acute toxicity**

**Product:** 

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

Method: Calculation method

**Components:** 

hexahydromethylphthalic anhydride:

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

cyclohexane-1,2-dicarboxylic anhydride:

Acute oral toxicity : LD50 (Rat, male and female): 4 040 mg/kg

Method: Other guidelines

GLP: no

Assessment: The substance or mixture has no acute oral

toxicity

Acute inhalation toxicity : LC50 (Rat, male and female): > 1.100 mg/m3

Exposure time: 4 h
Test atmosphere: vapour

Assessment: The substance or mixture has no acute

inhalation toxicity

Acute dermal toxicity : LD50 Dermal (Rabbit, male and female): > 2 000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

Assessment: The substance or mixture has no acute dermal

toxicity

tetrahydromethylphthalic anhydride:

Acute oral toxicity : LD50 (Rat, male and female): > 2 000 mg/kg

Method: OECD Test Guideline 401

Assessment: The substance or mixture has no acute oral

toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2 000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

1-methylimidazole:

Acute oral toxicity : LD50 (Rat, male and female): ca. 1 144 mg/kg

Method: OECD Test Guideline 401

Acute toxicity estimate: 1 144 mg/kg

Method: Calculation method

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Acute inhalation toxicity : LC0 (Rat): 1,2 mg/l

Exposure time: 8 h

Test atmosphere: vapour

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute

inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit, male and female): 400 - 640 mg/kg

Method: OECD Test Guideline 402

Acute toxicity estimate: 400 mg/kg Method: Calculation method

# Skin corrosion/irritation

### **Components:**

## cyclohexane-1,2-dicarboxylic anhydride:

Species : Rabbit Exposure time : 24 h

Assessment : No skin irritation
Method : Other guidelines
Result : No skin irritation

GLP : no

### tetrahydromethylphthalic anhydride:

Species : Rabbit

Assessment : Mild skin irritant
Method : OPPTS 870.2500
Result : slight irritation

# 1-methylimidazole:

Species : Rabbit

Method : OECD Test Guideline 404

Result : Corrosive after 3 minutes to 1 hour of exposure

### Serious eye damage/eye irritation

# Components:

# hexahydromethylphthalic anhydride:

Species : Rabbit

Result : Risk of serious damage to eyes.

# cyclohexane-1,2-dicarboxylic anhydride:

Species : Rabbit Exposure time : 30 s

Assessment : Risk of serious damage to eyes.

Method : Other guidelines

Result : Risk of serious damage to eyes.

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# tetrahydromethylphthalic anhydride:

Species : Rabbit

Method : OECD Test Guideline 405

Result : Corrosive

1-methylimidazole:

Species : Rabbit

Method : OECD Test Guideline 405
Result : Irreversible effects on the eye

### Respiratory or skin sensitisation

## **Components:**

### hexahydromethylphthalic anhydride:

Result : May cause sensitisation by inhalation.

Result : May cause sensitisation by skin contact.

### cyclohexane-1,2-dicarboxylic anhydride:

Test Type : Maximisation Test

Exposure routes : Dermal Species : Guinea pig

Assessment : May cause sensitisation by skin contact.

Method : OECD Test Guideline 406

Result : May cause sensitisation by skin contact.

GLP : no

Test Type : see user defined free text Exposure routes : inhalation (vapour)

Species : Humans

Assessment : May cause sensitisation by inhalation. Result : May cause sensitisation by inhalation.

# tetrahydromethylphthalic anhydride:

Exposure routes : Respiratory Tract

Species : Humans

Result : May cause sensitisation by inhalation.

Result : May cause sensitisation by skin contact.

### Germ cell mutagenicity

### Components:

### cyclohexane-1,2-dicarboxylic anhydride:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro

Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

GLP: yes

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Test Type: Ames test

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: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

GLP: yes

Germ cell mutagenicity-

Assessment

In vitro tests did not show mutagenic effects

### 1-methylimidazole:

Genotoxicity in vitro : Test Type: Micronucleus test

Test system: Chinese hamster fibroblasts

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 487

Result: negative

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

### Carcinogenicity

No data available

### Reproductive toxicity

# **Components:**

# cyclohexane-1,2-dicarboxylic anhydride:

Effects on fertility : Test Type: Reproduction / Developmental Toxicity Screening

Test

Species: Rat, male and female

Application Route: Oral

Dose: 0, 100, 300, 1000 mg/kg Frequency of Treatment: 7 days/week

General Toxicity - Parent: LOÁEL: 1 000 mg/kg body weight General Toxicity F1: NOAEL: 1 000 mg/kg body weight

Method: OECD Test Guideline 421

Result: Animal testing did not show any effects on fertility.

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GLP: yes

Effects on foetal development

: Species: Rat, male and female

Application Route: Oral

Dose: 0, 100, 300 and 1000 mg/kg bo Frequency of Treatment: 1 daily

General Toxicity Maternal: LOAEL: 1 000 mg/kg body weight Developmental Toxicity: NOAEL: 1 000 mg/kg body weight

Method: OECD Test Guideline 421

Result: No adverse effects

GLP: yes

Reproductive toxicity -

Assessment

No toxicity to reproduction

No toxicity to reproduction

1-methylimidazole:

Effects on fertility : Species: Rat, male and female

Application Route: Oral

Dose: 10, 30, 90 milligram per kilogram

General Toxicity - Parent: NOAEL: 30 mg/kg body weight General Toxicity F1: NOAEL: 90 mg/kg body weight

Method: OECD Test Guideline 422

Result: No effects on fertility and early embryonic

development were detected.

Effects on foetal

development

Test Type: Pre-natal Species: Rat. female

Application Route: Oral

Dose: 10, 30, 90 milligram per kilogram

General Toxicity Maternal: NOAEL: 90 mg/kg body weight

Method: OECD Test Guideline 414

Reproductive toxicity -

Assessment

Some evidence of adverse effects on development, based on

animal experiments.

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Repeated dose toxicity

**Components:** 

cyclohexane-1,2-dicarboxylic anhydride:

Species : Rat, male and female

NOEL : 100 mg/kg
NOAEL : 100 mg/kg
Application Route : Oral
Exposure time : 6 Weeks
Number of exposures : one daily

Dose : 0, 100, 300, 1000 mg/kg

Control Group : yes

Method : OECD Test Guideline 407

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GLP : yes

Target Organs : Respiratory system, Stomach

1-methylimidazole:

Species : Rat, male and female

NOAEL : 90 mg/kg Application Route : oral (gavage)

Dose : 10,30,90 mg/kg bw/day
Method : OECD Test Guideline 408

# **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:

### cyclohexane-1,2-dicarboxylic anhydride:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 1 000 mg/l

End point: mortality Exposure time: 96 h Test Type: static test Analytical monitoring: no

Method: OECD Test Guideline 203

GLP: no

NOEC: 1 000 mg/l

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

according to Regulation (EC) No. 1907/2006



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Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 202

GLP: yes

NOEC: 100 mg/l

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): 90,5

mg/l

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

EyC50 (Pseudokirchneriella subcapitata (green algae)): 70,3

mg/l

Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

NOEC (Pseudokirchneriella subcapitata (green algae)): 46,9

mg/l

Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

Toxicity to microorganisms : EC50 (activated sludge): 370 mg/l

Exposure time: 3 h
Test Type: static test

Method: OECD Test Guideline 209

GLP: yes

### tetrahydromethylphthalic anhydride:

Toxicity to fish : LC50 (Oryzias latipes (Orange-red killifish)): > 100 mg/l

Exposure time: 96 h

Test Type: flow-through test Test substance: Fresh water Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 130 mg/l

Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EgC50 (Selenastrum capricornutum (green algae)): 68 mg/l

Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 201

Toxicity to microorganisms : IC2

IC20: 9,33 mg/l Exposure time: 3 h

Exposure time: 72 h

Test Type: flow-through test

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Test substance: Fresh water Method: OECD Test Guideline 209

Toxicity to fish (Chronic

toxicity)

NOEC: 100 mg/l Exposure time: 14 d

Species: Oryzias latipes (Orange-red killifish)

Test Type: flow-through test Test substance: Fresh water Method: OECD Test Guideline 204

Toxicity to daphnia and other :

aquatic invertebrates (Chronic toxicity)

NOEC: 20 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

1-methylimidazole:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 100 - < 215 mg/l

Exposure time: 96 h Test Type: static test

Test substance: Fresh water

Method: DIN 38412

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 267,9 mg/l

Exposure time: 48 h
Test Type: static test
Test substance: Fresh water

Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae/aquatic

plants

EC50 (Desmodesmus subspicatus (green algae)): 202,5 mg/l

Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (activated sludge): 1 050 mg/l

Exposure time: 7 h
Test Type: static test
Test substance: Fresh water
Method: DIN 38 412 Part 8

### 12.2 Persistence and degradability

### **Components:**

## cyclohexane-1,2-dicarboxylic anhydride:

Biodegradability : Test Type: aerobic

Inoculum: activated sludge, non-adapted

Concentration: 24 mg/l Result: Readily biodegradable.

Biodegradation: 98 % Exposure time: 28 d

Method: Directive 67/548/EEC Annex V, C.4.A.

GLP: yes

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Remarks: Readily biodegradable, according to appropriate

OECD test.

tetrahydromethylphthalic anhydride:

Biodegradability : Inoculum: activated sludge

Concentration: 100 mg/l

Result: Not readily biodegradable.

Biodegradation: 0 % Exposure time: 28 d

Method: OECD Test Guideline 301C

Stability in water : Degradation half life (DT50): 3,3 min (20 °C)

pH: 4

Method: OECD Test Guideline 111

Remarks: Fresh water

1-methylimidazole:

Biodegradability : Test Type: aerobic

Inoculum: activated sludge Concentration: 100 mg/l

Result: Not readily biodegradable. Biodegradation: 0 - 10 %

Exposure time: 28 d

Method: OECD Test Guideline 301F

Test Type: aerobic

Inoculum: activated sludge Concentration: 40 mg/l

Result: Inherently biodegradable.

Biodegradation: 79 % Exposure time: 60 d Method: ISO Method, other

### 12.3 Bioaccumulative potential

# **Components:**

### cyclohexane-1,2-dicarboxylic anhydride:

Bioaccumulation : Species: Fish

Bioconcentration factor (BCF): 4,73

Partition coefficient: n- : log Pow: -4,14 (20 °C)

octanol/water Method: QSAR

log Pow: -0,31 (20 °C) Method: QSAR

log Pow: 1,59 (20 °C) Method: QSAR

tetrahydromethylphthalic anhydride:

Bioaccumulation : Bioconcentration factor (BCF): 3,16

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Partition coefficient: n-

octanol/water

: log Pow: 2,38 - 2,51 (25 °C)

log Pow: -0,19 (25 °C)

6:Ha

Method: QSAR

1-methylimidazole:

Partition coefficient: n-

octanol/water pH: 9,25 - 9,85

Method: OECD Test Guideline 107

12.4 Mobility in soil

**Components:** 

1-methylimidazole:

Distribution among : Koc: 27

environmental compartments Method: Calculation method

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

No data available

**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.

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## **SECTION 14: Transport information**

#### 14.1 UN number or ID number

UNRTDG
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
IATA

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

Remarks : Not classified as dangerous in the meaning of transport

regulations.

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

according to Regulation (EC) No. 1907/2006



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### **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).

: hexahydromethylphthalic anhydride cyclohexane-1,2-dicarboxylic

anhydride

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)

: 51, 66bis, 66

### 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

**NZIoC** : 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** : Not in compliance with the inventory

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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**

H302 : Harmful if swallowed. H311 : Toxic in contact with skin.

H314 : Causes severe skin burns and eye damage. H317 : May cause an allergic skin reaction.

H318 : Causes serious eve damage.

H334 : May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

H361d : Suspected of damaging the unborn child.

### Full text of other abbreviations

Acute Tox. : Acute toxicity

Eye Dam.Serious eye damageReproductive toxicityResp. Sens.Respiratory sensitisation

Skin Corr. : Skin corrosion Skin Sens. : Skin sensitisation

### **Further information**

# Classification of the mixture: Classification procedure:

Eye Dam. 1H318Calculation methodResp. Sens. 1H334Calculation methodSkin Sens. 1H317Calculation method

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