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

1.1 Product identifier

Trade name : ARADUR® 3298

Unique Formula Identifier (UFI) : JS9G-20GD-C001-VAC3

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

Use of the Substance/Mixture : Hardener

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)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Acute toxicity, Category 4	H312: Harmful in contact with skin.
Skin corrosion, Sub-category 1A	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Reproductive toxicity, Category 1B	H360F: May damage fertility.
Specific target organ toxicity - repeated exposure, Category 2, Liver, Kidney, Adrenal gland, Heart, Blood	H373: May cause damage to organs through prolonged or repeated exposure.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements :

H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H360F	May damage fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P201	Obtain special instructions before use.
P260	Do not breathe mist or vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off

immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
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.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P391 Collect spillage.

Hazardous components which must be listed on the label:

Polyoxypropylenediamine
3-aminomethyl-3,5,5-trimethylcyclohexylamine
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
4,4'-isopropylidenediphenol

Additional Labelling

Restricted to professional users.

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: This substance/mixture contains components considered to have endocrine disrupting properties for environment , according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Toxicological information: This substance/mixture contains components considered to have endocrine disrupting properties affecting human health, according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

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)
Polyoxypropylenediamine	9046-10-0 Polymer	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 30 - < 50

3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2 220-666-8 612-067-00-9 01-2119514687-32	Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 specific concentration limit Skin Sens. 1A; H317 >= 0,001 % Skin Sens. 1A; H317 >= 0,001 % Acute toxicity estimate Acute oral toxicity: 1 030 mg/kg	>= 20 - < 30
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	6864-37-5 229-962-1 612-110-00-1 01-2119497829-12	Acute Tox. 4; H302 Acute Tox. 2; H330 Acute Tox. 3; H311 Skin Corr. 1A; H314 Eye Dam. 1; H318 STOT RE 2; H373 (Skeletal muscle, Liver, Heart, Kidney) Aquatic Chronic 2; H411	>= 20 - < 25
benzyl alcohol	100-51-6 202-859-9 603-057-00-5 01-2119492630-38	Acute Tox. 4; H302 Acute Tox. 4; H332 Eye Irrit. 2; H319 Acute toxicity estimate Acute oral toxicity: 1 620 mg/kg Acute inhalation toxicity (dust/mist): 4,178 mg/l	>= 1 - < 10
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	25513-64-8 247-063-2 01-2119560598-25	Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Acute toxicity estimate Acute oral toxicity: 910 mg/kg	>= 1 - < 3
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2 202-013-9 603-069-00-0 01-2119560597-27	Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318	>= 1 - < 3
salicylic acid	69-72-7 200-712-3 607-732-00-5	Acute Tox. 4; H302 Eye Dam. 1; H318 Repr. 2; H361d	>= 0,1 - < 1

	01-2119486984-17		
4,4'-isopropylidenediphenol	80-05-7 201-245-8 604-030-00-0 01-2119457856-23	Eye Dam. 1; H318 Skin Sens. 1; H317 Repr. 1B; H360F STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 10	>= 0,3 - < 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.

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
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	:	Keep respiratory tract clear. Do NOT induce vomiting. 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

Risks	:	Harmful if swallowed, in contact with skin or if inhaled. May cause an allergic skin reaction. Causes serious eye damage. May damage fertility. May cause damage to organs through prolonged or repeated exposure. Causes severe burns.

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 Nitrogen oxides (NOx) Ammonia

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 : Neutralise with acid.
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.
To avoid spills during handling keep bottle on a metal tray.
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. Observe label precautions. Keep in properly labelled containers.
Advice on common storage	:	Do not store near acids.
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

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
4,4'-isopropylidenediphenol	80-05-7	VME (Dust, inhalable fraction)	2 mg/m3	FR VLE
Further information	Reprotoxic category 1B - Probably reprotoxic to humans, Regulatory binding exposure limits			
		TWA (inhalable fraction)	2 mg/m3	2017/164/EU
Further information	Indicative			
		TWA (inhalable fraction)	2 mg/m3	2004/37/EC
Further information	Carcinogens or mutagens			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Workers	Inhalation	Long-term local effects	0,073 mg/m3
	Workers	Inhalation	Acute local effects	0,073 mg/m3
	Consumers	Oral	Long-term systemic effects	0,3 mg/kg bw/day
	Consumers	Oral	Acute systemic effects	0,3 mg/kg bw/day
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	Workers	Inhalation	Long-term systemic effects	0,6 mg/m3

	Workers	Inhalation	Long-term local effects	1 mg/m3
	Workers	Dermal	Long-term systemic effects	0,05 mg/kg
	Consumers	Oral	Long-term systemic effects	0,008 mg/kg bw/day
2,4,6-tris(dimethylaminomethyl)phenol	Workers	Inhalation	Long-term systemic effects	0,53 mg/m3
	Workers	Inhalation	Acute systemic effects	2,1 mg/m3
	Workers	Dermal	Long-term systemic effects	0,150 mg/kg
	Workers	Dermal	Acute systemic effects	0,600 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0,130 mg/m3
	Consumers	Inhalation	Acute systemic effects	0,130 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,075 mg/kg
	Consumers	Dermal	Acute systemic effects	0,075 mg/kg
	Consumers	Oral	Long-term systemic effects	0,075 mg/kg
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	Workers	Inhalation	Long-term systemic effects	0,6 mg/m3
	Workers	Inhalation	Long-term local effects	1 mg/m3
	Workers	Dermal	Long-term systemic effects	0,05 mg/kg
	Consumers	Oral	Long-term systemic effects	0,008 mg/kg bw/day
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Workers	Inhalation	Long-term local effects	0,073 mg/m3
	Workers	Inhalation	Acute local effects	0,073 mg/m3
	Consumers	Oral	Long-term systemic effects	0,3 mg/kg bw/day
	Consumers	Oral	Acute systemic effects	0,3 mg/kg bw/day
benzyl alcohol	Workers	Inhalation	Long-term systemic effects	22 mg/m3
	Workers	Inhalation	Short-term exposure, Systemic effects	110 mg/m3
	Workers	Dermal	Long-term systemic effects	8 mg/kg bw/day
	Workers	Dermal	Short-term exposure, Systemic effects	40 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	5,4 mg/m3
	Consumers	Inhalation	Short-term exposure, Systemic effects	27 mg/m3

	Consumers	Dermal	Long-term systemic effects	4 mg/kg bw/day
	Consumers	Dermal	Systemic effects, Short-term exposure	20 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	4 mg/kg bw/day
	Consumers	Oral	Short-term exposure, Systemic effects	20 mg/kg bw/day
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	Consumers	Oral	Long-term systemic effects	0,05 mg/kg
salicylic acid	Workers	Inhalation	Long-term systemic effects	5 mg/m3
	Workers	Inhalation	Long-term local effects	5 mg/m3
	Workers	Dermal	Long-term systemic effects	2,3 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	4 mg/m3
	Consumers	Dermal	Long-term systemic effects	1 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	1 mg/kg bw/day
	Consumers	Oral	Acute effects, Short-term exposure	4 mg/kg bw/day
2,4,6-tris(dimethylaminomethyl)phenol	Workers	Inhalation	Long-term systemic effects	0,53 mg/m3
	Workers	Inhalation	Acute systemic effects	2,1 mg/m3
	Workers	Dermal	Long-term systemic effects	0,150 mg/kg
	Workers	Dermal	Acute systemic effects	0,600 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0,130 mg/m3
	Consumers	Inhalation	Acute systemic effects	0,130 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,075 mg/kg
	Consumers	Dermal	Acute systemic effects	0,075 mg/kg
	Consumers	Oral	Long-term systemic effects	0,075 mg/kg
Polyoxypropylenediamine	Workers	Inhalation	Long-term systemic effects	10,58 mg/m3
	Workers	Dermal	Long-term systemic effects	2,5 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Fresh water	0,06 mg/l
	Remarks:Assessment Factors	

	Marine water	0,006 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	3,18 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	5,784 mg/kg dry weight (d.w.)
	Remarks:Equilibrium method	
	Marine sediment	0,578 mg/kg dry weight (d.w.)
	Soil	1,121 mg/kg dry weight (d.w.)
	Freshwater - intermittent	0,23 mg/l
	Remarks:Assessment Factors	
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	Fresh water	0,1 mg/l
	Remarks:Assessment Factors	
	Marine water	0,01 mg/l
	Remarks:Assessment Factors	
	Freshwater - intermittent	0,046 mg/l
	Sewage treatment plant	1,6 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	4,34 mg/kg dry weight (d.w.)
	Marine sediment	0,434 mg/kg dry weight (d.w.)
	Soil	4,56 mg/kg
	Remarks:Assessment Factors	
	Oral	0,556 mg/kg
2,4,6-tris(dimethylaminomethyl)phenol	Fresh water	0,046 mg/l
	Marine water	0,005 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	0,262 mg/l
	Remarks:Assessment Factors	
	Freshwater - intermittent	0,46 mg/l
	Soil	0,025 mg/kg
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	Fresh water	0,1 mg/l
	Remarks:Assessment Factors	
	Marine water	0,01 mg/l
	Remarks:Assessment Factors	
	Freshwater - intermittent	0,046 mg/l
	Sewage treatment plant	1,6 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	4,34 mg/kg dry weight (d.w.)
	Marine sediment	0,434 mg/kg dry weight (d.w.)
	Soil	4,56 mg/kg
	Remarks:Assessment Factors	
	Oral	0,556 mg/kg
2,4,6-tris(dimethylaminomethyl)phenol	Fresh water	0,046 mg/l

	Marine water	0,005 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	0,262 mg/l
	Remarks:Assessment Factors	
	Freshwater - intermittent	0,46 mg/l
	Soil	0,025 mg/kg
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Fresh water	0,06 mg/l
	Remarks:Assessment Factors	
	Marine water	0,006 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	3,18 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	5,784 mg/kg dry weight (d.w.)
	Remarks:Equilibrium method	
	Marine sediment	0,578 mg/kg dry weight (d.w.)
	Soil	1,121 mg/kg dry weight (d.w.)
	Freshwater - intermittent	0,23 mg/l
	Remarks:Assessment Factors	
benzyl alcohol	Fresh water	1 mg/l
	Remarks:Assessment Factors	
	Marine water	0,1 mg/l
	Remarks:Assessment Factors	
	Freshwater - intermittent	2,3 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	39 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	5,27 mg/kg
	Remarks:Assessment Factors	
	Marine sediment	0,527 mg/kg
	Remarks:Assessment Factors	
	Soil	0,456 mg/kg
	Remarks:Assessment Factors	
	Secondary Poisoning	
	Remarks:Assessment Factors	
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	Fresh water	0,102 mg/l
	Remarks:Assessment Factors	
	Marine water	0,01 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	72 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	0,662 mg/kg
	Marine sediment	0,062 mg/kg
salicylic acid	Marine water	0,02 mg/l
	Sewage treatment plant	162 mg/l
	Fresh water sediment	1,42 mg/kg dry weight (d.w.)
	Marine sediment	0,142 mg/kg dry weight (d.w.)

	Soil	0,166 mg/kg dry weight (d.w.)
	Secondary Poisoning	
Polyoxypropylenediamine	Fresh water	0,015 mg/l
	Remarks:Assessment Factors	
	Marine water	0,014 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	7,5 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	0,132 mg/kg dry weight (d.w.)
	Remarks:Equilibrium method	
	Marine sediment	0,125 mg/kg dry weight (d.w.)
	Remarks:Equilibrium method	
	Soil	0,018 mg/kg dry weight (d.w.)
	Remarks:Equilibrium method	
	Oral	6,93 mg/kg
	Freshwater - intermittent	0,15 mg/l
	Remarks:Assessment Factors	

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).

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 Equipment should conform to EN 14387

Filter type : Combined particulates, inorganic and acidic gas/vapour, ammonia/amines and organic vapour type (ABEK-P)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	colourless
Odour	:	amine-like
Odour Threshold	:	No data is available on the product itself.
Melting point/freezing point	:	No data is available on the product itself.
Boiling point	:	> 200 °C Method: Information given is based on data obtained from similar substances.
Flammability (solid, gas)	:	No data is available on the product itself.
Lower explosion limit / Lower flammability limit	:	No data is available on the product itself.
Upper explosion limit / Upper flammability limit	:	No data is available on the product itself.
Flash point	:	> 100 °C Method: closed cup
Auto-ignition temperature	:	No data is available on the product itself.
Decomposition temperature	:	No data is available on the product itself.
pH	:	ca. 11 (20 °C)
Viscosity		
Viscosity, dynamic	:	30 - 60 mPa.s (25 °C) Method: ASTM Method, other
Solubility(ies)		
Water solubility	:	partly soluble (20 °C) Method: Information given is based on data obtained from

similar substances.

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.
Vapour pressure	:	No data is available on the product itself.
Density	:	0,9 - 1 g/cm3 (25 °C)
Relative density	:	No data is available on the product itself.
Relative vapour density	:	No data is available on the product itself.
Particle characteristics	:	No data is available on the product itself.

9.2 Other information

No data is available on the product itself.

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 : None known.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if swallowed, in contact with skin or if inhaled.

Product:

Acute oral toxicity : Acute toxicity estimate: 894,04 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 1,83 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: 1 047 mg/kg
Method: Calculation method

Components:

Polyoxypropylenediamine:

Acute oral toxicity : LD50 (Rat, male): 1 099 mg/kg
Method: OECD Test Guideline 401
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute dermal toxicity : LD50 (Rabbit, male and female): 1 555 mg/kg
Method: OECD Test Guideline 402
Assessment: The component/mixture is moderately toxic after single contact with skin.

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Acute oral toxicity : LD50 (Rat, male): 1 030 mg/kg
Method: OECD Test Guideline 401
GLP: no
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute toxicity estimate: 1 030 mg/kg
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : (Rat, male and female): > 5,01 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Symptoms: Breathing difficulties
GLP: yes

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

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Acute oral toxicity : LD50 (Rat, male and female): 320 - 460 mg/kg
Method: OECD Test Guideline 401
GLP: no
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat, male and female): 0,42 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The component/mixture is highly toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rabbit, male and female): 200 - 400 mg/kg
Method: OECD Test Guideline 402
GLP: no
Assessment: The component/mixture is toxic after single contact with skin.

benzyl alcohol:

Acute oral toxicity : LD50 (Rat, male): 1 620 mg/kg
Method: OECD Test Guideline 401

Acute toxicity estimate: 1 620 mg/kg
Method: Calculation method

Acute inhalation toxicity : LC50 (Rat, male and female): 4,178 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute toxicity estimate: 4,178 mg/l
Test atmosphere: dust/mist
Method: Calculation method

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Acute oral toxicity : LD50 (Rat): 910 mg/kg
Method: OECD Test Guideline 401

Acute toxicity estimate: 910 mg/kg
Method: Calculation method

2,4,6-tris(dimethylaminomethyl)phenol:

Acute oral toxicity : LD50 (Rat, male and female): 2 169 mg/kg
Method: OECD Test Guideline 401
Assessment: The component/mixture is low toxic after single ingestion.

Acute dermal toxicity : LD50 (Rat, male): > 1 ml/kg
Assessment: The substance or mixture has no acute dermal toxicity

salicylic acid:

Acute oral toxicity : LD50 (Rat, male): 891 mg/kg
Method: OECD Test Guideline 401
GLP: no
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity	:	LC50 (Rat, male): > 0,9 mg/l Exposure time: 1 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 (Rat, male and female): > 2 000 mg/kg Method: OECD Test Guideline 402 GLP: yes Assessment: The substance or mixture has no acute dermal toxicity

4,4'-isopropylidenediphenol:

Acute oral toxicity	:	LD50 (Rat, male and female): > 2 000 - < 5 000 mg/kg Method: OECD Test Guideline 401 Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity	:	LC50 (Rat, male and female): > 170 mg/m3 Exposure time: 6 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 (Rabbit, male): ca. 6 400 mg/kg Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Causes severe burns.

Components:

Polyoxypropylenediamine:

Species	:	Rabbit
Assessment	:	Causes burns.
Method	:	OECD Test Guideline 404
Result	:	Corrosive after 3 minutes to 1 hour of exposure

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Species	:	Rabbit
Assessment	:	Causes burns.
Result	:	Causes burns.

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Species	:	Rabbit
Assessment	:	Causes burns.
Method	:	OECD Test Guideline 404
Result	:	Causes burns.
GLP	:	no

Species	:	synthetic macromolecular bio-barrier
Assessment	:	Causes burns.
Method	:	OECD Test Guideline 435

Result	:	Causes burns.
GLP	:	yes

benzyl alcohol:

Species	:	Rabbit
Assessment	:	No skin irritation
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Species	:	Rabbit
Assessment	:	Causes severe burns.
Result	:	Corrosive after 3 minutes or less of exposure

2,4,6-tris(dimethylaminomethyl)phenol:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Corrosive after 1 to 4 hours of exposure
Species	:	synthetic macromolecular bio-barrier
Method	:	OECD Test Guideline 435
Result	:	Corrosive after 1 to 4 hours of exposure

salicylic acid:

Species	:	Rabbit
Assessment	:	No skin irritation
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
GLP	:	yes

4,4'-isopropylidenediphenol:

Species	:	Rabbit
Assessment	:	No skin irritation
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
GLP	:	yes

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

Polyoxypropylenediamine:

Assessment	:	Risk of serious damage to eyes.
Result	:	Risk of serious damage to eyes.

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Species	:	Rabbit
Assessment	:	Corrosive
Method	:	OECD Test Guideline 405

Result	:	Irreversible effects on the eye
GLP	:	no

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Species	:	Rabbit
Exposure time	:	24 h
Assessment	:	Risk of serious damage to eyes.
Method	:	OECD Test Guideline 405
Result	:	Irreversible effects on the eye
GLP	:	no

benzyl alcohol:

Species	:	Rabbit
Assessment	:	Irritant
Method	:	OECD Test Guideline 405
Result	:	Irritating to eyes.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Corrosive

2,4,6-tris(dimethylaminomethyl)phenol:

Species	:	Rabbit
Assessment	:	Corrosive
Method	:	Other guidelines
Result	:	Corrosive

salicylic acid:

Species	:	Rabbit
Assessment	:	Risk of serious damage to eyes.
Result	:	Irreversible effects on the eye

4,4'-isopropylidenediphenol:

Species	:	Rabbit
Assessment	:	Risk of serious damage to eyes.
Method	:	OECD Test Guideline 405
Result	:	Risk of serious damage to eyes.
GLP	:	yes

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified due to lack of data.

Components:

Polyoxypropylenediamine:

Exposure routes	:	Skin
Species	:	Guinea pig
Assessment	:	Did not cause sensitisation on laboratory animals.
Result	:	Did not cause sensitisation on laboratory animals.

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Test Type	:	Maximisation 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

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Test Type	:	Maximisation Test
Exposure routes	:	Skin
Species	:	Guinea pig
Assessment	:	Did not cause sensitisation on laboratory animals.
Method	:	OECD Test Guideline 406
Result	:	Did not cause sensitisation on laboratory animals.
GLP	:	no

benzyl alcohol:

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

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Exposure routes	:	Skin
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	The product is a skin sensitiser, sub-category 1A.

2,4,6-tris(dimethylaminomethyl)phenol:

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

salicylic acid:

Test Type	:	Local lymph node assay (LLNA)
Exposure routes	:	Skin
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitisation.

4,4'-isopropylidenediphenol:

Exposure routes	:	Skin
Species	:	Mouse
Assessment	:	Did not cause sensitisation on laboratory animals.
Method	:	OECD Test Guideline 429
Result	:	Did not cause sensitisation on laboratory animals.
GLP	:	yes

Exposure routes	:	Skin
Species	:	Humans
Assessment	:	May cause sensitisation by skin contact.
Result	:	Causes sensitisation.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

Polyoxypropylenediamine:

Genotoxicity in vitro	:	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative Test Type: gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Result: negative
Germ cell mutagenicity-Assessment	:	In vitro tests did not show mutagenic effects

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Genotoxicity in vitro	:	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 GLP: yes Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative GLP: yes Test Type: reverse mutation assay Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse (male and female)
Cell type: Bone marrow
Application Route: Oral
Dose: 50, 150, or 500 mg/kg
Method: OECD Test Guideline 474
Result: negative
GLP: yes

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Genotoxicity in vitro : 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

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
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

benzyl alcohol:

Genotoxicity in vivo : Application Route: Intraperitoneal injection
Dose: 200 mg/kg
Method: OECD Test Guideline 474
Result: negative

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Concentration: 5000 ug/plate
Metabolic activation: with and without metabolic activation
Method: Directive 67/548/EEC, Annex, B.13/14
Result: negative

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster ovary cells

Concentration: 2 mg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Species: Chinese hamster (male and female)
Cell type: Bone marrow
Application Route: Oral
Dose: 825 - 1000 mg/kg
Method: OECD Test Guideline 474
Result: negative

Test Type: In vivo micronucleus test
Species: Mouse (male and female)
Application Route: Oral
Dose: 850 - 1000 mg/kg
Method: OECD Test Guideline 474
Result: negative

2,4,6-tris(dimethylaminomethyl)phenol:

Genotoxicity in vitro : Concentration: 5000 ug/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Concentration: 2500 ug/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

salicylic acid:

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

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

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

Genotoxicity in vivo : Test Type: sister chromatid exchange assay
Species: Mouse (male)
Cell type: Bone marrow
Application Route: Oral
Dose: 350 mg/kg
Method: OPPTS 870.5915
Result: negative

Test Type: sister chromatid exchange assay
Species: Mouse (male)
Cell type: Bone marrow
Application Route: Intraperitoneal injection
Dose: 20/50/100 mg/kg
Method: OPPTS 870.5915
Result: negative

Species: Mouse (male)
Cell type: Bone marrow
Application Route: Intraperitoneal injection
Dose: 50/100/200 mg/kg
Method: OECD Test Guideline 475
Result: negative

Species: Mouse (male)
Cell type: Bone marrow
Application Route: Oral
Dose: 350 mg/kg
Method: OECD Test Guideline 475
Result: negative

4,4'-isopropylidenediphenol:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: reverse mutation assay
Test system: Salmonella tryphimurium and E. coli
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male and female)
Cell type: Bone marrow
Application Route: Oral
Dose: 0, 500, 1000, or 2000 mg/kg
Result: negative

Carcinogenicity

Not classified due to lack of data.

Components:

benzyl alcohol:

Species	:	Rat, male and female
Application Route	:	Oral
Exposure time	:	103 weeks
Dose	:	400 mg/kg
Frequency of Treatment	:	5 daily
Method	:	OECD Test Guideline 453
Result	:	negative

salicylic acid:

Species	:	Rat, male and female
Application Route	:	Oral
Exposure time	:	24 month(s)
Dose	:	0,50,250,500,1000 mg/kg
Frequency of Treatment	:	7 daily
NOAEL	:	500 mg/kg bw/day
Result	:	negative
Remarks	:	Information given is based on data obtained from similar substances.

4,4'-isopropylidenediphenol:

Species	:	Rat, male and female
Application Route	:	Oral
Exposure time	:	103 weeks
Frequency of Treatment	:	7 daily
Result	:	negative
GLP	:	yes

Reproductive toxicity

May damage fertility.

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Effects on fertility	:	Species: Rat, male and female Application Route: Oral Dose: 0/25/80/240 mg/kg bw/day Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEL: 80 mg/kg body weight General Toxicity F1: NOAEL: > 160 mg/kg body weight Method: OECD Test Guideline 443 GLP: yes
Effects on foetal development	:	Test Type: Pre-natal Species: Rat, female Application Route: Oral Dose: 10/50/250 milligram per kilogram Duration of Single Treatment: 14 d General Toxicity Maternal: NOEL: 50 mg/kg body weight

Method: OECD Test Guideline 414
Result: No teratogenic effects
GLP: yes

Test Type: Pre-natal
Species: Rabbit, female
Application Route: Oral
Dose: 0/10/25/75 mg/kg bw/d
Duration of Single Treatment: 23 d
General Toxicity Maternal: NOAEL: 25 mg/kg body weight
Teratogenicity: NOAEL: > 250 mg/kg body weight
Developmental Toxicity: NOAEL: > 75 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Effects on fertility : Species: Rat, male and female
Application Route: Oral
Dose: 1.5/5/15 mg/kg bw/d
General Toxicity - Parent: NOAEL: 1,5 mg/kg body weight
Method: OECD Test Guideline 443
GLP: yes

Effects on foetal development : Test Type: Pre-natal
Species: Rat, female
Application Route: Oral
Dose: 5, 15 and 45 mg/kg bw /day
Duration of Single Treatment: 20 d
Frequency of Treatment: 7 days/week
General Toxicity Maternal: NOAEL: 5 mg/kg body weight
Developmental Toxicity: NOAEL: 45 mg/kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects
GLP: yes

Test Type: Pre-natal
Species: Rabbit, female
Application Route: Oral
Dose: 1/3/9 mg/kg bw/d
Duration of Single Treatment: 23 d
Frequency of Treatment: 7 days/week
General Toxicity Maternal: NOAEL: 1 mg/kg body weight
Developmental Toxicity: NOAEL: 9 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes

benzyl alcohol:

Effects on foetal development : Species: Mouse, female
Application Route: Oral
General Toxicity Maternal: LOAEL: 550 mg/kg body weight
Result: No teratogenic effects

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Effects on fertility	:	Species: Rat, male and female Application Route: Oral Dose: 10, 60, 120 mg/kg bw/day Method: OECD Test Guideline 416 Result: No effects on fertility and early embryonic development were detected.
Effects on foetal development	:	Species: Rabbit, female Application Route: Oral General Toxicity Maternal: NOAEL: 50 000 ppm Result: No teratogenic effects

2,4,6-tris(dimethylaminomethyl)phenol:

Effects on fertility	:	Species: Rat, male and female Application Route: Oral Method: OECD Test Guideline 422 Remarks: No significant adverse effects were reported

salicylic acid:

Effects on foetal development	:	Species: Rabbit, female Application Route: Oral Duration of Single Treatment: 3 - 13 d General Toxicity Maternal: NOAEL: 125 mg/kg body weight Developmental Toxicity: NOAEL: 250 mg/kg body weight Method: OECD Test Guideline 414 Remarks: Information given is based on data obtained from similar substances.
Reproductive toxicity - Assessment	:	Some evidence of adverse effects on development, based on animal experiments.

4,4'-isopropylidenediphenol:

Effects on fertility	:	Test Type: Two-generation study Species: Rat, male and female Application Route: Oral Dose: 0, 0.2, 2, 20, and 200 µg/kg General Toxicity - Parent: NOAEL: 0,2 mg/kg body weight General Toxicity F1: NOAEL: 0,2 mg/kg body weight General Toxicity F2: NOAEL: 0,2 mg/kg body weight Method: OECD Test Guideline 416 Result: Embryotoxic effects and adverse effects on the offspring were detected. GLP: yes Species: Rat, male and female General Toxicity - Parent: NOAEL: 2,7 mg/kg body weight General Toxicity F1: NOAEL: 2,7 mg/kg body weight GLP: yes
Effects on foetal development	:	Species: Rat, female Application Route: Oral General Toxicity Maternal: NOAEL: 0,2 mg/kg body weight Method: OECD Test Guideline 416

Result: No teratogenic effects

Reproductive toxicity - Assessment : Clear evidence of adverse effects on sexual function and fertility, based on animal experiments.

STOT - single exposure

Not classified due to lack of data.

Components:

4,4'-isopropylidenediphenol:

Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Components:

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Exposure routes : Ingestion
Target Organs : Skeletal muscle, Liver, Heart, Kidney
Assessment : May cause damage to organs through prolonged or repeated exposure., The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Repeated dose toxicity

Components:

Polyoxypropylenediamine:

Species : Rat, male and female
NOAEL : 300 mg/kg/d
Application Route : Skin contact
Exposure time : 90 d 6 h
Method : Subchronic toxicity

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Species : Rat, male and female
NOAEL : 59 - 62 mg/kg
LOAEL : 160 mg/kg
Application Route : oral (drinking water)
Exposure time : 90 d
Number of exposures : daily
Dose : 20, 60, 160 mg/kg
Method : OECD Test Guideline 408
Target Organs : Kidney

Species : Rat, male and female
NOEC : 200 mg/m3
Application Route : Inhalation
Test atmosphere : dust/mist
Exposure time : 216 h

Number of exposures	:	6h
Method	:	Subacute toxicity
Target Organs	:	respiratory tract irritation

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Species	:	Rat, male and female
NOEC	:	12 mg/m3
Application Route	:	Inhalation
Test atmosphere	:	vapour
Exposure time	:	6 h
Number of exposures	:	5 days/week
Method	:	OECD Test Guideline 413
GLP	:	yes

Species	:	Rat, male and female
NOAEL	:	2,5 mg/kg
Application Route	:	oral (gavage)
Exposure time	:	3 months
Number of exposures	:	5 days/week
Dose	:	2.5, 12, 60 mg/kg bw/day
Method	:	OECD Test Guideline 408
GLP	:	yes
Target Organs	:	Liver, Kidney, Skeletal muscle, Heart

benzyl alcohol:

Species	:	Rat, male and female
NOEC	:	400 mg/kg, 1072 mg/m3
Application Route	:	Inhalation
Test atmosphere	:	dust/mist
Exposure time	:	4 Weeks
Number of exposures	:	6 h
Method	:	OECD Test Guideline 412

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Species	:	Rat, male and female
NOAEL	:	10 mg/kg bw/day
Application Route	:	Ingestion
Exposure time	:	13 Weeks
Number of exposures	:	Daily
Dose	:	10, 60, 180mg/kg bw
Target Organs	:	Liver

Species	:	Rat, male and female
LOAEL	:	60 mg/kg bw/day
Application Route	:	Ingestion
Exposure time	:	13 Weeks
Number of exposures	:	Daily
Dose	:	10, 60, 180mg/kg bw
Target Organs	:	Liver

2,4,6-tris(dimethylaminomethyl)phenol:

Species	:	Rat, male and female

NOEL	:	15 mg/kg
Application Route	:	Ingestion
Exposure time	:	1 032 h
Number of exposures	:	7 d
Method	:	Subacute toxicity

salicylic acid:

Species	:	Rat, male and female
NOAEL	:	50 mg/kg
Application Route	:	oral (feed)
Exposure time	:	2 yr
Number of exposures	:	7 d
Dose	:	0, 50, 250, 500, 1000 mg/kg bw
Method	:	Chronic toxicity
Remarks	:	Information given is based on data obtained from similar substances.

Species	:	Rat, female
NOEC	:	700 mg/m3
Application Route	:	inhalation (vapour)
Exposure time	:	7 h 4 Weeks
Number of exposures	:	5 days/week
Dose	:	635 mg/m3
Method	:	OECD Test Guideline 412
GLP	:	no
Remarks	:	Information given is based on data obtained from similar substances.

4,4'-isopropylidenediphenol:

Species	:	Mouse, male and female
NOAEL	:	300 ppm
Application Route	:	oral (feed)
Exposure time	:	8 weeks
Number of exposures	:	7 days/week
Dose	:	0.018,0.18,1.8,30,300,3500 ppm
Method	:	OECD Test Guideline 416
GLP	:	yes

Species	:	Rat, male and female
NOEL	:	75 ppm
NOAEL	:	750 ppm
Application Route	:	oral (feed)
Number of exposures	:	7 days/week
Dose	:	0,0.015,0.3,4.5,75,750,7500ppm
Method	:	OECD Test Guideline 416
GLP	:	yes

Species	:	Rat, male and female
LOAEL	:	600 mg/kg
Application Route	:	oral (gavage)
Exposure time	:	28 d
Number of exposures	:	7 days/week
Dose	:	0, 40, 200, 600 1000 mg/kg-day
Method	:	OECD Test Guideline 407

GLP	:	yes
Species	:	Rat, male and female
NOEC	:	10 mg/m3
Application Route	:	inhalation (dust/mist/fume)
Exposure time	:	13 weeks 6 h
Number of exposures	:	5 days/week
Dose	:	0, 10, 50, or 150 mg/m3
Species	:	Rat, male and female
NOAEL	:	90 mg/m³
Application Route	:	inhalation (dust/mist/fume)
Exposure time	:	8 weeks 6 h
Number of exposures	:	5 days/week
Dose	:	10/30/90 mg/m3

Aspiration toxicity

Not classified due to lack of data.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment	:	This substance/mixture contains components considered to have endocrine disrupting properties affecting human health, according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

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:

Polyoxypropylenediamine:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 15 mg/l End point: Immobilization Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	IC50 (Scenedesmus subspicatus): 135 mg/l Exposure time: 72 h

Test substance: Fresh water
Method: OECD Test Guideline 201

Ecotoxicology Assessment

Acute aquatic toxicity : Harmful to aquatic life.

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

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 110 mg/l
End point: mortality
Exposure time: 96 h
Test Type: semi-static test
Analytical monitoring: yes
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.1.
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 23 mg/l
End point: mortality
Exposure time: 48 h
Test Type: static test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 50 mg/l
Exposure time: 72 h
Test Type: static test
Analytical monitoring: no
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.3.
GLP: yes

EC10 (Desmodesmus subspicatus (green algae)): 11,2 mg/l
Exposure time: 72 h
Test Type: static test
Analytical monitoring: no
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.3.
GLP: yes

Toxicity to microorganisms : EC10 (Pseudomonas putida): 1 120 mg/l
Exposure time: 18 h
Test Type: static test
Method: Measured

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 3 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Analytical monitoring: yes
Test substance: Fresh water

Method: OECD Test Guideline 202
Remarks: No-observed-effect level

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Toxicity to fish : LC50 (Oryzias latipes (Orange-red killifish)): 22,4 mg/l
End point: mortality
Exposure time: 96 h
Test Type: semi-static test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 4,57 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

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 7,9 mg/l
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 201
GLP: yes

EC10 (Pseudokirchneriella subcapitata (green algae)): 4,1 mg/l
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 201
GLP: yes

Toxicity to microorganisms : EC20 (activated sludge): 160 mg/l
Exposure time: 30 min
Test Type: static test
Analytical monitoring: no
Method: ISO 8192
GLP: no

Toxicity to fish (Chronic toxicity) : NOEC: > 1 mg/l
Species: Fish
Method: QSAR
GLP: no
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 4 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test Analytical monitoring: yes Test substance: Fresh water Method: OECD Test Guideline 211 GLP: yes

Ecotoxicology Assessment

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

benzyl alcohol:

Toxicity to fish	:	LC50 : 460 mg/l Exposure time: 96 h Test Type: static test Test substance: Fresh water Method: OPPTS 850.1075
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 230 mg/l Exposure time: 48 h Test substance: Fresh water Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EgC50 (Selenastrum capricornutum (green algae)): 770 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 51 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

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 174 mg/l Exposure time: 48 h Method: DIN 38412
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 31,5 mg/l Exposure time: 24 h Method: DIN 38412
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (algae)): 43,5 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 EC50 (Pseudokirchneriella subcapitata (algae)): 37,1 mg/l Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (algae)): 16 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : IC50 (Pseudomonas putida): 89 mg/l
Exposure time: 17 h

Toxicity to fish (Chronic toxicity) : NOEC: 10,9 mg/l
Exposure time: 30 d
Species: Brachydanio rerio (zebrafish)
Method: OECD Test Guideline 210

Lowest Observed Effect Concentration: 10,9 mg/l
Exposure time: 30 d
Species: Brachydanio rerio (zebrafish)
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 1,02 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

Lowest Observed Effect Concentration: 1,02 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

Toxicity to soil dwelling organisms : NOEC: >= 1 000 mg/kg
Exposure time: 56 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 222

EC50: >= 1 000 mg/kg
Exposure time: 56 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 222

2,4,6-tris(dimethylaminomethyl)phenol:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 175 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates : LC50 (Palaeomonetes vulgaris (Grass shrimp)): 718 mg/l
End point: mortality
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no
Test substance: Marine water

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 84 mg/l
Exposure time: 72 h

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

NOEC (Desmodesmus subspicatus (green algae)): 6,25 mg/l
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 201

salicylic acid:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 1 370 mg/l
Exposure time: 96 h
Test Type: flow-through test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 203
GLP: no
Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 870 mg/l
Exposure time: 48 h
Test Type: static test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : NOEC (Pseudomonas putida): 162 mg/l
Exposure time: 16 h
Test Type: static test
Test substance: Fresh water
Method: ISO Method, other
Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 10 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 202

4,4'-isopropylidenediphenol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 4,6 mg/l
End point: mortality
Exposure time: 96 h
Test Type: flow-through test
Analytical monitoring: yes
Test substance: Fresh water

Method: ASTM Method, other
GLP: yes

LC50 (Oryzias latipes (Orange-red killifish)): 6,8 mg/l
End point: mortality
Exposure time: 72 h
Test substance: Fresh water
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 10,2 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Analytical monitoring: yes
Test substance: Fresh water
Method: Other guidelines
GLP: yes

EC50 (Chironomus sp. (midge)): 2,7 mg/l
End point: Immobilization
Exposure time: 96 h
Test Type: semi-static test
Analytical monitoring: yes
Test substance: Fresh water
Method: Other guidelines
GLP: yes

EC50 (Acartia tonsa): 0,885 mg/l
Exposure time: 48 h
Method: Measured

Toxicity to algae/aquatic plants : EbC50 (Pseudokirchneriella subcapitata (green algae)): 2,73 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: yes
Test substance: Fresh water
GLP: yes

EC10 (Pseudokirchneriella subcapitata (green algae)): 1,41 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: yes
Test substance: Fresh water
GLP: yes

EC50 (Lemna minor (duckweed)): 20 mg/l
Exposure time: 7 d
Test Type: semi-static test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 221
GLP: yes

NOEC (Lemna minor (duckweed)): 7,8 mg/l
Exposure time: 7 d
Test Type: semi-static test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 221
GLP: yes

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC: >= 0,640 mg/l
Exposure time: 36 d
Species: Pimephales promelas (fathead minnow)
Test Type: flow-through test
Analytical monitoring: yes
Test substance: Fresh water
Method: OECD Test Guideline 210
GLP: yes

NOEC: 0,000372 mg/l
Exposure time: 300 d
Species: Danio rerio (zebra fish)
Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,025 mg/l
Exposure time: 181 d
Test Type: flow-through test
Analytical monitoring: yes
Test substance: Fresh water
GLP: yes

M-Factor (Chronic aquatic toxicity) : 10

12.2 Persistence and degradability

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Concentration: 6,9 mg/l
Result: Not readily biodegradable.
Biodegradation: 8 %
Related to: Dissolved organic carbon (DOC)
Exposure time: 28 d
Method: Directive 67/548/EEC Annex V, C.4.A.
Test substance: Fresh water
GLP: yes

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Biodegradability : Test Type: aerobic
Inoculum: Sewage (STP effluent)
Concentration: 100 mg/l

Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301C
Test substance: Fresh water
GLP: yes

benzyl alcohol:

Biodegradability : Inoculum: Sewage (STP effluent)
Concentration: 20 mg/l
Result: Readily biodegradable.
Biodegradation: 95 - 97 %
Exposure time: 21 d
Method: OECD Test Guideline 301A

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Biodegradability : Inoculum: activated sludge
Concentration: 11,4 mg/l
Result: Not readily biodegradable.
Biodegradation: 7 %
Exposure time: 28 d

2,4,6-tris(dimethylaminomethyl)phenol:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge, non-adapted
Concentration: 2 mg/l
Result: Not biodegradable
Biodegradation: 4 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

salicylic acid:

Biodegradability : Test Type: aerobic
Inoculum: Mixture
Concentration: 100 mg/l
Result: Readily biodegradable.
Biodegradation: 88,1 %
Related to: Biochemical oxygen demand
Exposure time: 14 d
Method: OECD Test Guideline 301C
GLP: No information available.

Test Type: aerobic
Inoculum: activated sludge, non-adapted
Result: Inherently biodegradable.
Biodegradation: > 90 %
Related to: Dissolved organic carbon (DOC)
Exposure time: 4 d
Method: Directive 67/548/EEC, Annex V, C.9
GLP: no

4,4'-isopropylidenediphenol:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge, non-adapted Concentration: 100 mg/l Result: Readily biodegradable. Biodegradation: 89 % Exposure time: 28 d Method: OECD Test Guideline 301F Test substance: Fresh water GLP: yes Test Type: aerobic Inoculum: activated sludge, non-adapted Concentration: 25 mg/l Result: Readily biodegradable. Biodegradation: 74,7 - 81,4 % Related to: Dissolved organic carbon (DOC) Exposure time: 28 d Method: OECD Test Guideline 301F Test substance: Fresh water GLP: yes

12.3 Bioaccumulative potential

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Partition coefficient: n-octanol/water	:	log Pow: 0,99 (23 °C) pH: 6,34 Method: OECD Test Guideline 107 GLP: yes

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Bioaccumulation	:	Species: Cyprinus carpio (Carp) Exposure time: 60 d Temperature: 24 °C Concentration: 0,02 mg/l Bioconcentration factor (BCF): < 60 Test substance: Fresh water Method: OECD Test Guideline 305C GLP: yes Remarks: Does not bioaccumulate.
Partition coefficient: n-octanol/water	:	log Pow: 2,3 (23 °C) pH: 10 Method: OECD Test Guideline 107

benzyl alcohol:

Bioaccumulation	:	Bioconcentration factor (BCF): 1
Partition coefficient: n-octanol/water	:	log Pow: 1,1 (20 °C)

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Partition coefficient: n-octanol/water	:	log Pow: -0,3 (25 °C) Method: OECD Test Guideline 117

2,4,6-tris(dimethylaminomethyl)phenol:

Partition coefficient: n-octanol/water	:	Pow: >= 0,219 (21,5 °C) log Pow: -0,66 (21,5 °C) Method: OPPTS 830.7550

salicylic acid:

Partition coefficient: n-octanol/water	:	log Pow: 2,25 (25 °C) Method: OECD Test Guideline 117

4,4'-isopropylidenediphenol:

Bioaccumulation	:	Species: Cyprinus carpio (Carp) Exposure time: 42 d Bioconcentration factor (BCF): 5,1 - 13,3
Partition coefficient: n-octanol/water	:	log Pow: 3,4 (21,5 °C) pH: 6,4 Method: OECD Test Guideline 107

12.4 Mobility in soil

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Distribution among environmental compartments	:	Koc: 928

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):

Distribution among environmental compartments	:	Koc: 1195

benzyl alcohol:

Distribution among environmental compartments	:	Koc: 5 - 15

salicylic acid:

Distribution among environmental compartments	:	Koc: 35 Method: OECD Test Guideline 121

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 : This substance/mixture contains components considered to have endocrine disrupting properties for environment , according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Components:

4,4'-isopropylidenediphenol:

Assessment : The substance is considered to have endocrine disrupting properties according to REACH Article 57(f) for the environment.

12.7 Other adverse effects

Product:

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

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

ADN : UN 2735

ADR : UN 2735

RID : UN 2735

IMDG : UN 2735

IATA : UN 2735

14.2 UN proper shipping name

ADN : POLYAMINES, LIQUID, CORROSIVE, N.O.S. (POLYOXYPROPYLENEDIAMINE, Cycloaliphatic amine)

ADR	:	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (POLYOXYPROPYLENEDIAMINE, Cycloaliphatic amine)
RID	:	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (POLYOXYPROPYLENEDIAMINE, Cycloaliphatic amine)
IMDG	:	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (POLYOXYPROPYLENEDIAMINE, Cycloaliphatic amine)
IATA	:	Polyamines, liquid, corrosive, n.o.s. (POLYOXYPROPYLENEDIAMINE, Cycloaliphatic amine)

14.3 Transport hazard class(es)

		Class	Subsidiary risks
ADN	:	8	
ADR	:	8	
RID	:	8	
IMDG	:	8	
IATA	:	8	

14.4 Packing group

ADN

Packing group	:	II
Classification Code	:	C7
Hazard Identification Number	:	80
Labels	:	8

ADR

Packing group	:	II
Classification Code	:	C7
Hazard Identification Number	:	80
Labels	:	8
Tunnel restriction code	:	(E)

RID

Packing group	:	II
Classification Code	:	C7
Hazard Identification Number	:	80
Labels	:	8

IMDG

Packing group	:	II
Labels	:	8
EmS Code	:	F-A, S-B

IATA (Cargo)

Packing instruction (cargo aircraft)	:	855
Packing instruction (LQ)	:	Y840
Packing group	:	II
Labels	:	Corrosive

IATA (Passenger)

Packing instruction (passenger aircraft)	:	851

Packing instruction (LQ)	:	Y840
Packing group	:	II
Labels	:	Corrosive

14.5 Environmental hazards

ADN
Environmentally hazardous : yes

ADR
Environmentally hazardous : yes

RID
Environmentally hazardous : yes

IMDG
Marine pollutant : yes(4,4'-Isopropylidenediphenol, Cycloaliphatic amine)

14.6 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.

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).	:	4,4'-isopropylidenediphenol
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. 4,4'-isopropylidenediphenol (Number on list 66, 30)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	E2	ENVIRONMENTAL HAZARDS

Occupational Illnesses (R-461-3, France)	:	49, 49 bis, 84
Installations classified for the protection of the environment (Environment Code R511-9)	:	4511

Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

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	:	Not in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	Not 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

H302	:	Harmful if swallowed.
H311	:	Toxic in contact with skin.
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.
H330	:	Fatal if inhaled.
H332	:	Harmful if inhaled.
H335	:	May cause respiratory irritation.
H360F	:	May damage fertility.
H361d	:	Suspected of damaging the unborn child.
H373	:	May cause damage to organs through prolonged or repeated exposure if swallowed.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H411	:	Toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Repr.	:	Reproductive toxicity
Skin Corr.	:	Skin corrosion
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
2004/37/EC	:	Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
2017/164/EU	:	Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
FR VLE	:	France. Occupational Exposure Limits
2004/37/EC / TWA	:	Long term exposure limit
2017/164/EU / TWA	:	Limit Value - eight hours
FR VLE / VME	:	Time Weighted Average

Further information

Classification of the mixture:		**Classification procedure:**
Acute Tox. 4	H302	Calculation method
Acute Tox. 4	H332	Calculation method
Acute Tox. 4	H312	Calculation method
Skin Corr. 1A	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Repr. 1B	H360F	Calculation method

STOT RE 2	H373	Calculation method
Aquatic Chronic 2	H411	Calculation method

The information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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