

According to directive 1907/2006/EC, 2020/878
Version 7.0 Revision date: 12-07-2024
Trade name: W 241

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

1.1 Product identification:

Product name: W 241
UFI code: 4PD2-P05V-C000-JJFP

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

Usage: Epoxy hardener
Recommended restrictions on use: For industrial and professional use only.

1.3 Details of the supplier of the safety data sheet:

Responsible distributor : ASSYST bvba / A.S.O.W. bvba
Hellegatstraat 13a
2590 Berlaar
Belgium
Tel: +32 495 50 61 14 / +32 496 83 70 27
Website: www.assyst.org / www.artsuppliesonweb.com
Email: ao@assyst.org / vera.opsommer@assyst.org

1.4 Emergency phone number:

For Belgium:

Call the **Poison Control Centre (070 245 245 - free)**, if not available: **02 264 96 30** (normal rate) or your doctor. In life-threatening situations, always call the European emergency number **112**.

NHS 24 Direct

For help from a GP, visit your GP surgery's website, use an online service to contact your GP, or call the surgery. **For urgent medical help**, use the NHS 111 online service, or **call 111** if you are unable to get help online. **For life-threatening emergencies, call 999** for an ambulance. There is more information about getting medical help on the NHS website.

SECTION 2: Identification of hazards

2.1 Classification of the substance or mixture:

Classification according to directive (EC) No 1272/2008 and its amendments.

The product is classified according to current legislation.

Classification in accordance with Regulation (EC) No 1272/2008 as amended.

Health hazards

Skin corrosion/irritation, Category 1B - H314: Causes severe 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.

(Chronic) Aquatic long-term hazard, Category 3 - H412: Harmful to aquatic life with long lasting effects.

For the full text of H phrases referred to in this section, see section 16.

2.2 Labelling elements:

Labelling according to regulation (EC) No 1272/2008 [CLP/GHS]:



Hazard pictograms:

Signal word: Danger.

Hazardous ingredients to be declared on the label:

- ✓ Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-
- ✓ 4,4'-isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Hazard statements:

H314 Causes severe burns and eye damage.

H317 May cause an allergic skin reaction.

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H412 Harmful to aquatic life with long-lasting effects.

Precautions

Prevention:

P261 Avoid inhalation of dust/fume/gas/mist/vapour/spray.

P273 Avoid discharge into the environment.

P280 Wear protective gloves/eye protection/face protection.

Action:

P303 + P361 + P353 IF ON SKIN (or hair): remove contaminated clothing immediately. Rinse skin with water/shower.

P304 + P340 + P310 IF INHALED: Remove the person to fresh air and ensure that he/she can breathe easily. Immediately consult an ANTIGENCENTRUM/doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes; remove contact lenses, if possible; continue rinsing. Immediately consult a POISON CENTER/doctor.

2.3 Other hazards:

This substance/mixture does not contain any components that can be considered 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 any components believed 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 level 0.1% or higher.

Toxicological information:

The substance/mixture does not contain any components believed 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 level 0.1% or higher.

SECTION 3: Composition and information on ingredients

3.2 Mixtures:

Description:

Chemical description : Aliphatic amine

Chemical Name	Cas no. EC No. Index no. Registration number	Classification (Regulation (EC) No 1272/008)	Concentration (%)
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-	9046-10-0 - - 01-2119557899-12	Skin Corr.1C; H314 Eye Dam.1; H318 Aquatic Chronic3; H412	>= 50 - <= 100
4,4'-isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine	38294-64-3 500-101-4 - 01-2119965165-33-0011	Skin Corr.1B; H314 Eye Dam.1; H318 Skin Sens.1; H317 Aquatic Chronic3; H412	>= 30 - < 50
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	>= 10 - < 12,5

For explanation of abbreviations, see section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures:

General advice:

Show this safety data sheet to the doctor on duty.

Keep warm and put in a quiet environment.

Remove contaminated clothing immediately.

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By inhalation:

Getting into the fresh air.
Keep victim warm and calm.
If unconscious, apply stable side position and seek medical attention.
If symptoms persist, consult a doctor.
In case of irregular breathing or respiratory arrest, apply artificial respiration.

On contact with skin:

Immediately wash with soap and plenty of water.
DO NOT use solvents or paint thinner.
In case of spillage on clothing, remove clothing.
If skin irritation persists, consult a doctor.

On contact with eyes:

Rinse immediately with plenty of water, including under the eyelids, for at least 15 minutes.
If eye irritation persists, consult a specialist.
As far as easy to do, remove any contact lenses.

If swallowed:

DO NOT induce vomiting without medical advice.
Placing a person lying on their back and vomiting in a stable side position.
Call a doctor immediately.
Water small amounts.

4.2 Main acute and delayed symptoms and effects:

Symptoms:

Burn
Superficial burning sensation
Redness
Strong irritation

4.3 Indication of immediate medical attention and special treatment required:

Treatment:

The procedure for first aid should be drawn up together with the company doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media:

Suitable extinguishing agents:

Carbon dioxide (CO₂)
Foam
Dry powder
Water mist

Unsuitable extinguishing media:

Nothing known.

5.2 Special hazards arising from the substance or mixture:

Specific hazards in firefighting:

Heat can increase pressure in sealed containers.
Cool closed containers near the fire with water spray.
In case of fire, hazardous decomposition products are formed.

5.3 Advice for firefighters:

Special protective equipment for firefighters:

In case of fire, wear a compressed air mask.
Use personal protective equipment.

Further information:

In case of fire and/or explosion, avoid breathing fumes.
Use extinguishing agents suitable for the local conditions and environment.
Immediately evacuate personnel to a safe area.

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Prevent extinguishing water from contaminating surface water or groundwater systems.

SECTION 6: Measures in case of accidental release of the substance or mixture

6.1 Personal precautions, protective equipment and emergency procedures:

Personal precautions:

See protective measures in sections 7 and 8.
Evacuate personnel to a safe area.
Use personal protective equipment.
Ensure adequate ventilation.
Inform the competent authority in case of gas leaks, or runoff into waterways, soil or sewers.

6.2 Environmental precautions:

Environmental precautions:

Avoid uncontrolled discharge of product into the environment.
Try to prevent the material from draining into sewers or watercourses.
In case of significant leaks that cannot be contained, the local government should be notified.

6.3 Methods and materials for containment and cleaning:

Cleaning methods:

Absorb in inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Limit spill and collect with non-combustible absorbent materials, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13).
Incorporate and transfer into properly labelled containers.

6.4 Reference to other sections:

For personal protection, see section 8.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling of the substance or mixture:

Safe handling advice:

Ensure adequate ventilation and/or extraction in the workplace.
Do not inhale vapours or spray mist.
Avoid inhalation, ingestion and contact with skin and eyes.
Wear personal protective clothing.
Persons suffering from skin sensitisation problems, asthma, allergies, chronic or recurrent respiratory diseases should not perform work involving the use of this mixture.

Advice on protection against fire and explosion:

Keep away from open flames, hot surfaces and ignition sources.

Hygiene measures:

Ensure adequate air ventilation.
Wash hands and face before stopping work and immediately after using the product.

7.2 Conditions for safe storage, including incompatibilities:

Requirements for storage areas and containers:

Store containers tightly closed in a dry, cool and well-ventilated place.
Store in correctly labelled containers.
To maintain product quality do not expose to heat or direct sunlight.

Details of storage conditions:

Protect against moisture.

Advice for mixed storage:

Keep away from isocyanates.
Do not store near acids.
Keep away from oxidising agents.

Other details:

Stable at normal room temperature and pressure.

7.3 Specific end use:

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Specific use:

Before using this substance/mixture, refer to the technical guidelines.

SECTION 8: Exposure controls/personal protection measures

8.1 Control parameters:

The product contains no ingredients for which exposure values have been established.

Derived no-effect doses (DNEL) according to Regulation (EC) Number 1907/2006:

Substance name	End use	Route of exposure	Possible health condition	Value	
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-	Employees	Skin touch	Long-term - systemic effects	2.5 mg/kg	
	Employees	Skin touch	Long-term local effects	0.623 mg/cm ²	
	Consumers	Skin touch	Long-term - systemic effects	1.25 mg/kg	
	Consumers	Skin touch	Long-term local effects	0.311 mg/cm ²	
Benzyl alcohol	Consumers	Ingestion	Long-term - systemic effects	0.04 mg/kg	
	Employees	Inhalation	Short-term exposure, Systemic effects	450 mg/m ³	
	Employees	Inhalation	Long-term exposure, Systemic effects	90 mg/m ³	
	Employees	Skin touch	Short-term exposure, Systemic effects	47 mg/kg	
	Employees	Skin touch	Long-term exposure, Systemic effects	9.5 mg/kg	
	Consumers	Ingestion	Short-term exposure, Systemic effects	25 mg/kg	
	Consumers	Ingestion	Long-term exposure, Systemic effects	5 mg/kg	
	Consumers	Inhalation	Short-term exposure, Systemic effects	40.55 mg/m ³	
	Consumers	Inhalation	Long-term exposure, Systemic effects	8.11 mg/m ³	
	Consumers	Skin touch	Short-term exposure, Systemic effects	28.5 mg/kg	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine	Consumers	Skin touch	Long-term exposure, Systemic effects	5.7 mg/kg	
	Employees	Inhalation	Long-term - systemic effects	0.493 mg/m ³	
	Employees	Skin	Long-term - systemic effects	0.14 mg/kg	
	Consumers	Inhalation	Long-term - systemic effects	0.074 mg/m ³	
Benzyl alcohol	Consumers	Skin	Long-term - systemic effects	0.05 mg/m ³	
	Consumers	Oral	Long-term - systemic effects	0.05 mg/m ³	
	Benzyl alcohol	Consumers	Oral	Long-term - systemic effects	0.05 mg/m ³
		Consumers	Oral	Long-term - systemic effects	0.05 mg/m ³
		Consumers	Oral	Long-term - systemic effects	0.05 mg/m ³
		Consumers	Oral	Long-term - systemic effects	0.05 mg/m ³
Consumers		Oral	Long-term - systemic effects	0.05 mg/m ³	

Predicted no-effect concentration (PNEC) according to Regulation (EC) Number 1907/2006:

Substance name	Environmental compartment	Value
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-	Freshwater	0.015 mg/l
	Seawater	0.0143 mg/l
	Freshwater deposition	0.132 mg/kg
	Sea deposits	0.125 mg/kg
	Bottom	0.0176 mg/kg
	Sporadic release	0.15 mg/l
	Sewage treatment plant	7.5 mg/l
Benzyl alcohol	Freshwater	1 mg/l
	Seawater	0.1 mg/l

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	Freshwater deposition	5.27 mg/kg
	Sea deposits	0.527 mg/kg
	Bottom	0.456 mg/kg
	Sporadic release	39 mg/l
	Sewage treatment plant	2.3 mg/l
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Freshwater	0.06 mg/l
	Seawater	0.006 mg/l
	Sporadic release	0.23 mg/l
	Freshwater deposition	5,784 mg/kg
	Sea deposits	0.578 mg/kg
	Sewage treatment plant	3.18 mg/l
	Bottom	1,121 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine	Freshwater	0.011 mg/l
	Seawater	0.001 mg/l
	Sewage treatment plant	10 mg/l
	Freshwater deposition	4320 mg/kg
	Sea deposits	432 mg/kg
	Bottom	864 mg/kg

8.2 Exposure control measures:

Technical controls:

Effective extraction ventilation system.
Effective ventilation at all workplaces.

Personal protection devices:

Eye protection:

Do not wear contact lenses.
Safety glasses with side shields in accordance with EN 166
Provide eyewash facilities and safety showers close to the workplace.

Hand protection

Material:

Protective gloves according to EN 374.

Notes:

Nitrile rubber

Skin and body protection:

Protective clothing.
Recommended preventive skin protection.

Respiratory protection:

When handling the substance, respiratory protection must be worn if there is a risk of exposure to the substance's vapour.

The filter class of the respiratory protection must be suitable for the maximum pollution concentration (gas/vapour/aerosol/particles) that can be generated when handling the product.

Compressed air masks should be used if this concentration is exceeded.

Recommended filter type:

ABEK filter

The equipment must comply with EN 14387.

Protective measures:

Avoid contact with skin.
Wear suitable personal protective equipment.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Occurrence:	liquid
Colour:	light yellow
Odour:	ammoniacal
Odour threshold:	Not performed
Melting/freezing point:	Not applicable
Boiling point/boiling range:	> 200 °C
Upper explosion limit / Upper flammability limit:	Not applicable
Lower explosion limit / Lower flammability limit:	Not applicable
Flash point:	100 °C
Auto-ignition temperature:	Not applicable
pH:	11
	Concentration: 1%

Viscosity

Viscosity, dynamic:	180-300 mPa.s (25 °C)
Viscosity, kinematic:	Not performed

Solubility:

Solubility in water:	Not performed
Solubility in other solvents:	Not carried out
Partition coefficient n-octanol/water:	No data available
Vapour pressure:	Not performed
Density:	1 g/cm ³ (25 °C)
Bulk specific gravity:	Not exported
Relative vapour density:	Not performed

Particle characteristics

Particle size:	Not applicable
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9.2 Other information

Explosives:	Not applicable
Oxidising properties:	Not applicable
Self-ignition:	Not applicable
Evaporation rate:	Not performed
Surface tension:	Not performed
Sublimation point:	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity:

Stable under recommended storage conditions.

10.2 Chemical Stability:

No decomposition if stored and applied as indicated.

10.3 Potential Hazardous Reactions:

Dangerous reactions:

Reacts with the following substances:

Acids

Strong oxidising agents

10.4 Conditions to avoid:

No decomposition if directions are followed.

10.5 Chemically interacting Materials:

Materials to avoid:

Strong acids

Strong oxidising agents

10.6 Hazardous Decomposition Products:

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The following substances may be released from this product:

The following substances may be released from this product:

Nitrogen oxides (NOx)

Carbon monoxide

Carbon dioxide (CO2)

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Acute Toxicity

Product:

Acute oral toxicity:

Acute toxicity estimates : > 2,000 mg/kg

Method: Calculation method

Acute toxicity by inhalation:

Comments: No data available

Acute toxicity estimates: > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: Calculation method

Acute dermal toxicity:

Comments: No data available

Acute toxicity (other route of administration):

Comments: No data available

Constituents:

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Acute oral toxicity:

LD50 (Rat, male and female): 2,885.3 mg/kg

Method: Guideline test OECD 401

GLP: yes

Acute dermal toxicity:

LD50 (Rabbit, male and female): 2,979.7 mg/kg

Method: Guideline test OECD 402

GLP: yes

benzyl alcohol:

Acute toxicity by inhalation:

LC50 (Rat, male and female): 4 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: Guideline test OECD 403

GLP: yes

Skin corrosion/irritation

Product:

Comments: No data available

Constituents:

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Species: Rabbit

Method: Guideline test OECD 404

Result: Corrosive

4,4'-isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Species: human skin

Rating: Causes burns.

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Method: Guideline test OECD 431

Result: Causes burns.

GLP: yes

benzyl alcohol:

Species: Rabbit

Method: Guideline test OECD 404

Result: no skin irritation

GLP: yes

Serious eye damage/eye irritation

Product:

Comments: No data available

Constituents:

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Method: Guideline test OECD 405

Result: Risk of serious eye damage.

benzyl alcohol:

Species: Rabbit

Method: Guideline test OECD 405

Result: eye irritation

GLP: yes

Respiratory/skin sensitisation

Product:

Comments: No data available

Constituents:

4,4'-isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Assessment: May cause sensitisation by skin contact.

Mutagenicity in gametes

Constituents:

4,4'-isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Genotoxicity in vitro:

Test type: Ames test

Research species: Salmonella typhimurium

metabolic activation: with and without metabolic activation

Method: Guideline test OECD 471

Result: negative

GLP: yes

Carcinogenicity

Product:

Comments: No data available

Reproductive toxicity

Product:

Effects on fertility:

Comments: No data available

Effects on foetal development:

Comments: No data available

Constituents:

4,4'-isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Effects on foetal development:

Test type: Prenatal

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Species: Rat
Tribe: Sprague-Dawley
Method of application: Oral
General maternal toxicity: Dose at which no adverse effect is observed: 100 mg/kg body weight
Teratogenicity: Dose at which no adverse effect is observed: 250 mg/kg body weight
Developmental toxicity: Dose at which no adverse effect is observed: 250 mg/kg body weight
Embryo-foetal toxicity: Dose at which no adverse effect is observed: 250 mg/kg body weight
Method: Guideline test OECD 414
GLP: yes

STOT from single exposure

Product:

Comments: No data available

STOT on repeated exposure

Product:

Comments: No data available

Repeated-dose toxicity

Product:

Comments: No data available

Constituents:

4,4'-isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Species: Rat, male and female

NOAEL: 10 mg/kg

LOAEL: 100 mg/kg

Method of application: Oral

Exposure time: 90 d

Method: Guideline test OECD 408

GLP: yes

Species: Rat, male and female

NOAEL: 30 mg/kg

Method of application: Oral

Exposure time: 28 d

Method: Guideline test OECD 407

GLP: yes

11.2 Information on other hazards

Endocrine-disrupting properties

Product:

Assessment:

The substance/mixture does not contain any components believed 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 level 0.1% or higher.

Further information

Product:

Notes:

No data available

SECTION 12: Ecological information

12.1 Toxicity:

Product:

Toxicity to fish:

Comments: No data available

Toxicity to daphnia and other aquatic invertebrates:

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Comments: No data available

Constituents:

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Toxicity to fish:

LC50 (Oncorhynchus mykiss (rainbow trout)): > 15 mg/l

Exposure time: 96 h

Test type: semi-static test

Method: Guideline test OECD 203

GLP: yes

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (large water flea)): 80 mg/l

Exposure time: 48 h

Test type: static test

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae/water plants:

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.32 mg/l

Exposure time: 72 h

Test type: static test

Method: OECD Test Guideline 201

GLP: yes

4,4'-isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Toxicity to fish:

LL50 (Oncorhynchus mykiss (rainbow trout)): 70.7 mg/l

Exposure time: 96 h

Test type: static test

Method: Guideline test OECD 203

GLP: yes

Toxicity to daphnia and other aquatic invertebrates:

EL50 (Daphnia magna (large water flea)): 11.1 mg/l

Exposure time: 48 h

Test type: static test

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae/water plants:

EL50 (Pseudokirchneriella subcapitata (green algae)): 79.4 mg/l

Exposure time: 72 h

Test type: static test

Method: OECD Test Guideline 201

GLP: yes

Toxicity to micro-organisms:

(activated sludge): > 1,000 mg/l

Exposure time: 3 h

Test type: Respiratory inhibition

Method: OECD Test Guideline 209

GLP: yes

benzyl alcohol:

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (large water flea)): 230 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

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GLP: yes

Toxicity to algae/water plants:

ErC50 (Pseudokirchneriella subcapitata (green algae)): 770 mg/l

Exposure time: 72 h

Test type: static test

Method: OECD Test Guideline 201

GLP: yes

12.2 Persistence and Degradability:

Product:

Biodegradability:

Comments: No data available

Physicochemical removability:

Comments: No data available

Constituents:

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Biodegradability:

Test type: aerobic

Result: Not readily biodegradable.

Method: OECD 301 B test guideline

GLP: yes

4,4'-isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Biodegradability:

Test type: aerobic

Inoculum: activated sludge

Result: Non-biodegradable.

Biodegradation: 0 %

Exposure time: 28 d

Method: Guideline test OECD 301F

GLP: yes

12.3 Bioaccumulation:

Product:

Bioaccumulation:

Comments: No data available

Constituents:

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Partition coefficient: n-octanol/water:

log Pow: 1,34 (25 °C)

Method: OECD Test Guideline 117

GLP: yes

4,4'-isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Bioaccumulation:

Type: Fish

Bioconcentration factor (BCF): 5.13

Method: estimated

Partition coefficient: n-octanol/water:

log Pow: 3,6 (25 °C)

pH: 7

Method: Regulation (EC) No 440/2008, Annex, A.8

GLP: no

12.4 Mobility in soil:

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Constituents:

4,4'-isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Distribution within and between environmental compartments:

log Koc: > 5,16

Method: Guideline test OECD 121

12.5 Results of PBT and vPvB assessment:

Product:

Assessment:

This substance/mixture does not contain any components that can be considered 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 any components believed 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 level 0.1% or higher.

12.7 Other Harmful Effects:

Product:

Additional ecological information:

Remarks: There is a risk of environmental damage if this substance is handled or disposed of improperly.

SECTION 13: Disposal instructions

13.1 Waste treatment methods:

Product:

According to local and national regulations.

Container dangerous when empty.

Do not dispose together with household waste.

Do not mix streams during waste collection.

Contaminated packaging:

Empty containers should be disposed of at an authorised waste treatment facility for reuse or disposal.

SECTION 14: Information relating to transport

14.1 UN number

ADR/RID/ADN: UN 2735

IMDG: UN 2735

IATA: UN 2735

14.2 Proper cargo name according to UN model regulations

ADR/RID/ADN: AMINES, LIQUID, CORROSIVE, N.O.S.
(Polyoxypropylene Diamine)

IMDG: AMINES, LIQUID, CORROSIVE, N.O.S.
(Polyoxypropylene Diamine)

IATA: Amines, liquid, corrosive, n.o.s.
(Polyoxypropylene Diamine)

14.3 Transport hazard class(es)

ADR/RID/ADN: 8

IMDG: 8

IATA: 8

14.4 Packing group

ADR/RID/ADN

Packing group: III

Classification code: C7

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Hazard identification number: 80

Labels: 8

Notes: E

IMDG

Packing group: III

Labels: 8

EmS Code: F-A, S-B

Notes: IMDG Code segregation group 18 - Alkalis

IATA (Freight - cargo aircraft)

Packaging note: 856

Packing group: III

Labels: Corrosive

IATA (Passenger - passenger aircraft)

Packaging note: 852

Packaging requirement (LQ): Y841

Packing group: III

Labels: Corrosive

14.5 Environmental hazards

ADR/RID/ADN

Environmental hazard: no

IMDG

Marine pollution: no

14.6 Special precautions for the user

Notes:

The transport of dangerous goods, including loading and unloading, must be carried out in accordance with regulations by personnel who have received the necessary training.

The transport classification(s) given herein are for information only, and based solely on the properties of the unpackaged material as described in this safety data sheet. Transport classifications may vary in terms of mode of transport, size of packaging and variations in regional or national regulations.

14.7 Transport in bulk in accordance with Annex II to MARPOL 73/78 and the IBC Code

Not applicable for product, as delivered.

SECTION 15: Statutory information

15.1 Safety, health and environmental regulations and legislation specific to the substance or mixture:

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII):

Restriction conditions for the following dates should be considered:

Number on the list: 3

REACH - Candidate list of substances of very high concern for authorisation (Article 59):

Not applicable

Regulation (EC) No 1005/2009 on ozone-depleting substances:

Not applicable

Regulation (EE) 2019/1021 on persistent organic pollutants (recast):

Not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council concerning the export and import of dangerous chemicals:

Not applicable

REACH - List of substances subject to authorisation (Annex XIV):

Not applicable

REGULATION (EU) 2019/1148 on the marketing and use of explosives precursors:

Not applicable

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Overviews of toxic chemicals and precursor (intermediate) compounds of the International Convention on Chemical Weapons ("International Chemical Weapons Convention (CWC)":

Not applicable

Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors:

Not applicable

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

Other regulations:

As for the composition of the product, we deliberately do not add any of the substances indicated in European Directive 2011/65/EU (RoHS 2, RoHS3 and China RoHS).

The product therefore complies with the said guidelines.

Also, no conflict minerals are deliberately added to the product.

15.2 Chemical safety assessment:

Not applicable.

SECTION 16: Other information

Items in which relevant changes have been made from the previous version are highlighted in the main body of this document by a thicker vertical line.

Full text of the H statements

H302: Harmful if swallowed.
H314: Causes severe burns and eye damage.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H319: Causes severe eye irritation.
H332: Harmful by inhalation.
H412: Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.: Acute toxicity
Aquatic Chronic: (Chronic) Aquatic long-term hazard
Eye Dam.: Serious eye damage
Eye Irrit.: Eye irritation
Skin Corr.: Skin corrosion/irritation
Skin sensitisation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road (ADR Agreement); AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Association for the Testing of Materials; bw - Body Weight; CLP - Regulation on Classification, Labelling and Packaging; Regulation (EC) No 1272/2008; CMR - Carcinogenic, mutagenic or toxic to reproduction; DIN - Standard of the German Institute for Standardisation; DSL - List of substances used indoors (Canada); ECHA - European Chemicals Agency; EC-Number - EINECS number; ECx - Concentration associated with x% response; ELx - Charge capacity associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemicals (Japan); ErCx - Concentration associated with x% growth response; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - IMO International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk; IC50 - Half-Maximum Inhibitory Concentration; ICAO - International Civil Aviation Organisation; IECSC - Inventory List of Existing Chemicals in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korean

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Inventory of Existing Chemicals; LC50 - Lethal concentration for 50% of a test population; LD50 - Lethal dose for 50% of a test population (lethal dose median); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not otherwise specified; NO(A)EC - No discernible (negative) effect on concentration; NO(A)EL - No discernible (negative) effect on Level; NOELR - No discernible effect on cargo capacity; NZIoC - New Zealand inventory of chemicals; OECD - Organisation for Economic Co-operation and Development OECD; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, bioaccumulative and toxic substance; PICCS - Philippine inventory of chemicals and chemical substances; (Q)SAR - (Quantitative) structure-activity relationships; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH); RID - Regulations concerning the International Carriage of Dangerous Goods by Rail (RID); SADT - Self-accelerating decomposition temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwanese Inventory of Chemical Substances; TECL - Inventory of Chemical Substances Existing in Thailand; TRGS - Technical Regulation on Hazardous Substances; TSCA - Toxic Substances Control Act (USA); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Training advice:

Provide proper information, instruction and training for users.

Classification of the preparation:

Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
Aquatic Chronic 3	H412

Classification procedure:

Calculation method
Calculation method
Calculation method
Calculation method

The information in this safety data sheet is correct to the best of our knowledge at the date of issue indicated. This information is intended only as guidance for safe handling, use, processing, storage, transportation, disposal, and release, and should not be considered a guarantee or indication of quality.