

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

VOSSCHEMIE

PU-SYSTEM HR-AT (A-Komponente)

Version		Revision Date:	Date of last issue: 29.07.2019
1.1	GB / EN	30.08.2021	Date of first issue: 29.07.2019

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

1.1 Product identifier

Trade name : PU-SYSTEM HR-AT (A-Komponente)

Product code : 126.338

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

Use of the Sub-
stance/Mixture : Resins

Recommended restrictions : professional use, Industrial use
on use

1.3 Details of the supplier of the safety data sheet

Company : Vosschemie GmbH
Esinger Steinweg 50
25436 Uetersen
Germany

info@vosschemie.de

Telephone : 04122 717 0
Telefax : 04122 717158

Responsible Department : Laboratory

04122 717 0
sds@vosschemie.de

1.4 Emergency telephone number

Telephone : Giftinformationszentrum (GIZ)-Nord,
Göttingen, Deutschland
0551 19240

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements : P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

Prevention:

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

2.3 Other hazards

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

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

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

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mixture

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Propane-1,2-diol, propoxylated	25322-69-4 500-039-8	Acute Tox. 4; H302	>= 20 - < 30
Polyether polyol, branched	9082-00-2	Acute Tox. 4; H302	>= 20 - < 30
Ethylenediamine, propoxylated	25214-63-5 500-035-6 01-2119471485-32	Eye Irrit. 2; H319	>= 1 - < 10
2-dimethylaminoethanol	108-01-0 203-542-8 603-047-00-0 01-2119492298-24	Flam. Liq. 3; H226 Acute Tox. 4; H302 Acute Tox. 3; H331 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) specific concentration limit STOT SE 3; H335 >= 5 %	>= 1 - < 3
1-methylimidazole	616-47-7 210-484-7 613-035-00-7 01-2119979544-23	Acute Tox. 4; H302 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318	>= 1 - < 3

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : First aider needs to protect himself.
Remove from exposure, lie down.
Symptoms of poisoning may appear several hours later.
Victim to lie down in the recovery position, cover and keep him warm.
Take off all contaminated clothing immediately.

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- | | | |
|-------------------------|---|--|
| If inhaled | : | Remove person to fresh air. If signs/symptoms continue, get medical attention. |
| In case of skin contact | : | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician. |
| In case of eye contact | : | Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention. |
| If swallowed | : | Rinse mouth.
Do NOT induce vomiting.
Call a physician immediately. |

4.2 Most important symptoms and effects, both acute and delayed

- | | | |
|-------|---|---|
| Risks | : | Causes skin irritation.
Causes serious eye irritation. |
|-------|---|---|

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 | : | Carbon dioxide (CO ₂)
Dry powder
Water spray jet
Alcohol-resistant foam |
| Unsuitable extinguishing media | : | High volume water jet |

5.2 Special hazards arising from the substance or mixture

- | | | |
|---------------------------------------|---|---|
| Specific hazards during fire-fighting | : | Build-up of dangerous/toxic fumes possible in cases of fire/high temperature. |
|---------------------------------------|---|---|

5.3 Advice for firefighters

- | | | |
|---|---|--|
| Special protective equipment for firefighters | : | In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. |
| 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. |

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Ensure adequate ventilation, especially in confined areas.
Avoid contact with skin, eyes and clothing.
Use personal protective equipment.
Material can create slippery conditions.
Contaminated surfaces will be extremely slippery.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

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

6.4 Reference to other sections

For disposal considerations see section 13., For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Keep container closed when not in use.
Avoid contact with eyes.
Avoid breathing vapours, mist or gas.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not get on skin or clothing.

Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container.

Advice on common storage : Keep away from food and drink.
Do not store near acids.
Incompatible with oxidizing agents.

7.3 Specific end use(s)

Specific use(s) : No data available

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2-dimethylaminoethanol	108-01-0	TWA	2 ppm 7.4 mg/m ³	GB EH40
		STEL	6 ppm 22 mg/m ³	GB EH40

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Ethylenediamine, propoxylated	Workers	Inhalation	Long-term systemic effects	35.2 mg/m ³
	Workers	Dermal	Long-term systemic effects	5 mg/kg
	Consumers	Inhalation	Long-term systemic effects	10.4 mg/m ³
	Consumers	Dermal, Oral	Long-term systemic effects	3 mg/kg
2-dimethylaminoethanol	Workers	Inhalation	Long-term systemic effects, Long-term local effects	7.4 mg/m ³
	Workers	Inhalation	Acute systemic effects, Acute local effects	22 mg/m ³
	Workers	Skin contact	Long-term systemic effects	1.04 mg/kg
	Workers	Skin contact	Acute systemic effects	5 mg/kg
1-methylimidazole	Workers	Skin contact	Long-term local effects	0.08 mg/kg
	Workers	Inhalation	Long-term systemic effects	7.9 mg/m ³
	Workers	Skin contact	Long-term systemic effects	2.25 mg/kg
	Workers	Skin contact	Long-term systemic effects	2.25 mg/kg

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

Substance name	Environmental Compartment	Value
Ethylenediamine, propoxylated	Fresh water	0.085 mg/l
	Marine water	0.009 mg/l
	Sewage treatment plant	70 mg/l
	Fresh water sediment	0.193 mg/kg
	Marine sediment	0.019 mg/kg
	Soil	0.018 mg/kg
2-dimethylaminoethanol	Fresh water	0.066 mg/l
	Marine water	0.007 mg/l
	Sewage treatment plant	10 mg/l

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	Fresh water sediment	0.053 mg/kg
	Soil	0.018 mg/kg
1-methylimidazole	Fresh water	0.1 mg/l
	Marine water	0.01 mg/l
	Sewage treatment plant	589.6 mg/l
	Fresh water sediment	4.43 mg/kg
	Marine sediment	0.443 mg/kg
	Soil	0.825 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166

Hand protection

Material : Nitrile rubber
Break through time : > 480 min
Glove thickness : >= 0.35 mm
Directive : DIN EN 374
Protective index : Class 6

Remarks : Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The data about break through time/strength of material are standard values! The exact break through time/strength of material has to be obtained from the producer of the protective glove. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Preventive skin protection

Skin and body protection : Please wear suitable protective clothing, e.g. made of cotton or heat-resistant synthetic fibres.
Long sleeved clothing

Respiratory protection : Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
Respirator with combination filter for vapour/particulate (EN 141)

Protective measures : Ensure that eye flushing systems and safety showers are located close to the working place.
Avoid contact with the skin and the eyes.
Wear suitable protective equipment.
Follow the skin protection plan.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

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Colour	:	yellow
Odour	:	amine-like
Solidification / Setting point	:	< 0 °C
Boiling point/boiling range	:	> 140 °C (1,013 hPa)
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	> 110 °C
Ignition temperature	:	> 250 °C
pH	:	ca. 6 - 8 (20 °C)
Viscosity		
Viscosity, dynamic	:	1,100 mPa.s (25 °C)
Viscosity, kinematic	:	not determined
Solubility(ies)		
Water solubility	:	partly miscible
Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	< 10 hPa (20 °C)
Density	:	1.07 g/cm ³ (20 °C)

9.2 Other information

Explosives	:	Not explosive
Self-ignition	:	not auto-flammable

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if used as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Polymerisation can occur. Incompatible with acids.
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Incompatible with oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid : Protect from frost.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents
Acids

Isocyanates

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11: Toxicological information

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

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Expert judgement

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

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

Components:

Propane-1,2-diol, propoxylated:

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

Acute dermal toxicity : LD50 Dermal (Rabbit): > 3,000 mg/kg
Method: OECD Test Guideline 402

Polyether polyol, branched:

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

Ethylenediamine, propoxylated:

Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 Dermal (Rat): > 2,000 mg/kg

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Method: OECD Test Guideline 402

2-dimethylaminoethanol:

Acute oral toxicity : LD50 Oral (Rat): 1,182.7 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 1641 ppm
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

1-methylimidazole:

Acute oral toxicity : LD50 Oral (Rat): ca. 1,144 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC0 (Rat): 1.2 mg/l
Exposure time: 8 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50 Dermal (Rabbit): 400 - 640 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Causes skin irritation.

Components:

Propane-1,2-diol, propoxylated:

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

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

Propane-1,2-diol, propoxylated:

Species : Rabbit
Assessment : No eye irritation
Method : OECD Test Guideline 405

Ethylenediamine, propoxylated:

Result : Moderate eye irritation

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Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Propane-1,2-diol, propoxylated:

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

Germ cell mutagenicity

Not classified based on available information.

Components:

Propane-1,2-diol, propoxylated:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)
Method: OECD Test Guideline 471
Result: Not mutagenic in Ames Test

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

Test Type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Propane-1,2-diol, propoxylated:

Remarks : This information is not available.

Reproductive toxicity

Not classified based on available information.

Components:

Propane-1,2-diol, propoxylated:

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Effects on fertility : Species: Rat, male and female
Application Route: Oral
Dose: 0 - 100 - 300 - 1000 milligram per kilogram
Duration of Single Treatment: 14 d
General Toxicity - Parent: NOAEL: 1,000 mg/kg body weight
General Toxicity F1: NOAEL: 1,000 mg/kg body weight
Fertility: NOAEL: 1,000 mg/kg body weight
Method: OECD Test Guideline 421
Result: negative
Fertility and developmental toxicity tests did not reveal any effect on reproduction.

Effects on foetal development : Species: Rat, female
Application Route: Oral
Dose: 0 - 100 - 300 - 1000 milligram per kilogram
Duration of Single Treatment: 58 d
General Toxicity Maternal: NOAEL: 1,000 mg/kg body weight
Developmental Toxicity: NOAEL: 1,000 mg/kg body weight
Method: OECD Test Guideline 421
Result: negative

STOT - single exposure

Not classified based on available information.

Components:

2-dimethylaminoethanol:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Propane-1,2-diol, propoxylated:

Species : Rat, male and female
NOAEL : \geq 1000 mg/kg
Application Route : Oral
Exposure time : 4 w
Number of exposures : daily
Dose : 0 - 100 - 300 - 1000 mg/kg
Method : OECD Test Guideline 407

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components consid-

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ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Propane-1,2-diol, propoxylated:

- Toxicity to fish : LC50 (Poecilia reticulata (guppy)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : EC0 (Desmodesmus subspicatus (green algae)): >= 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- Toxicity to microorganisms : EC50 (Bacteria): > 1,000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: >= 10 mg/l
End point: mortality
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

Polyether polyol, branched:

Ecotoxicology Assessment

- Acute aquatic toxicity : This product has no known ecotoxicological effects.
- Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Ethylenediamine, propoxylated:

- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 2,700 mg/l
End point: mortality
Exposure time: 48 h
Method: DIN 38412
- Toxicity to daphnia and other aquatic invertebrates : EC0 (Daphnia magna (Water flea)): >= 100 mg/l
End point: Immobilization
Exposure time: 48 h
Method: Regulation (EC) No. 440/2008, Annex, C.2

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Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 150.67 mg/l
End point: Growth rate
Exposure time: 72 h
Method: Regulation (EC) No. 440/2008, Annex, C.3

Toxicity to microorganisms : NOEC (Bacteria): 700 mg/l
Exposure time: 3 h
Method: ISO 8192

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: \geq 10 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: Regulation (EC) No. 440/2008, Annex, C.20

Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

2-dimethylaminoethanol:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 146.63 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 98.37 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 66.08 mg/l
End point: Growth rate
Exposure time: 72 h

Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

1-methylimidazole:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): $>$ 100 mg/l
End point: mortality
Exposure time: 96 h
Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 267.9 mg/l
End point: Immobilization
Exposure time: 48 h
Method: Regulation (EC) No. 440/2008, Annex, C.2

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 180.7 mg/l
End point: Growth rate
Exposure time: 72 h
Method: OECD Test Guideline 201

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12.2 Persistence and degradability

Components:

Propane-1,2-diol, propoxylated:

Biodegradability : Biodegradation: > 60 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Photodegradation : Test Type: Air
Sensitiser: OH
Concentration: 500,000 1/cm³
Decomposes rapidly in contact with light.

Ethylenediamine, propoxylated:

Biodegradability : Result: Not rapidly biodegradable
Biodegradation: 36 %
Exposure time: 28 d

2-dimethylaminoethanol:

Biodegradability : Biodegradation: 60.5 %
Exposure time: 14 d
Method: OECD Test Guideline 301C

12.3 Bioaccumulative potential

Components:

Ethylenediamine, propoxylated:

Partition coefficient: n-octanol/water : log Pow: 1.82 (25 °C)

2-dimethylaminoethanol:

Partition coefficient: n-octanol/water : log Pow: -0.55 (23 °C)

1-methylimidazole:

Partition coefficient: n-octanol/water : log Pow: -0.19 (25 °C)

12.4 Mobility in soil

Components:

Propane-1,2-diol, propoxylated:

Distribution among environmental compartments : Medium: Soil
Koc: 1 - 10, log Koc: 0 - 1
Highly mobile in soils

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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..

Components:

Propane-1,2-diol, propoxylated:

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

12.6 Endocrine disrupting properties

Product:

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

12.7 Other adverse effects

Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.
Send to a licensed waste management company.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Dispose of in accordance with local regulations.

Waste Code : The following Waste Codes are only suggestions:
07 02 08, other still bottoms and reaction residues

SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as a dangerous good

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14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 3

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

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

15.2 Chemical safety assessment

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.

SECTION 16: Other information

Full text of H-Statements

H226 : Flammable liquid and vapour.
H302 : Harmful if swallowed.

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H311	: Toxic in contact with skin.
H312	: Harmful in contact with skin.
H314	: Causes severe skin burns and eye damage.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H331	: Toxic if inhaled.
H335	: May cause respiratory irritation.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Eye Dam.	: Serious eye damage
Eye Irrit.	: Eye irritation
Flam. Liq.	: Flammable liquids
Skin Corr.	: Skin corrosion
STOT SE	: Specific target organ toxicity - single exposure
GB EH40	: UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA	: Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	: Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Classification procedure:

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Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method

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