

SAFETY DATA SHEET

RESION Polyester Casting Resin

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

1.1. Product identifier

▼ Trade name

RESION Polyester Casting Resin

Product no.

PR11

Unique formula identifier (UFI)

SV00-U08K-V00N-9KK9

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

Relevant identified uses of the substance or mixture

Binder

Uses advised against

No special

1.3. Details of the supplier of the safety data sheet

Company and address

Polyestershoppen BV

Oostbaan 680

2841 ML Moordrecht

Netherlands

+31 85 0220090

Contact person

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E-mail

info@polyestershoppen.nl

Revision

04/05/2022

SDS Version

2.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flam. Liq. 3; H226, Flammable liquid and vapour.

Skin Irrit. 2; H315, Causes skin irritation.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Irrit. 2; H319, Causes serious eye irritation.

Acute Tox. 4; H332, Harmful if inhaled.

STOT SE 3; H335, May cause respiratory irritation.

Repr. 2; H361, Suspected of damaging fertility or the unborn child.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

STOT RE 1; H372, Causes damage to organs through prolonged or repeated exposure.

Aquatic Chronic 3; H412, Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

Flammable liquid and vapour. (H226)

Causes skin irritation. (H315)

May cause an allergic skin reaction. (H317)

Causes serious eye irritation. (H319)

Harmful if inhaled. (H332)

May cause respiratory irritation. (H335)

Suspected of damaging fertility or the unborn child. (H361)

Causes damage to organs through prolonged or repeated exposure. (H372)

Harmful to aquatic life with long lasting effects. (H412)

Safety statement(s)

General

If medical advice is needed, have product container or label at hand. (P101)

Keep out of reach of children. (P102)

Prevention

Do not breathe vapour/mist. (P260)

Do not eat, drink or smoke when using this product. (P270)

Response

IF exposed or concerned: Get medical advice/attention. (P308+P313)

Get medical advice/attention if you feel unwell. (P314)

Storage

Store locked up. (P405)

Disposal

Dispose of contents/container to an approved waste disposal plant. (P501)

Hazardous substances

styrene

methyl methacrylate;methyl 2-methylprop-2-enoate;methyl 2-methylpropenoate

phthalic anhydride

2.3. Other hazards

Additional labelling

Not applicable

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients

▼ 3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
styrene	CAS No.: 100-42-5	25-50%	Flam. Liq. 3, H226 Asp. Tox. 1, H304	

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

	EC No.: 202-851-5		Skin Irrit. 2, H315 Eye Irrit. 2, H319	
	REACH: 01-2119457861-32-XXXX		Acute Tox. 4, H332 STOT SE 3, H335	
	Index No.: 601-026-00-0		Repr. 2, H361 STOT RE 1, H372 Aquatic Chronic 3, H412	
methyl methacrylate;methyl 2-methylprop-2-enoate;methyl 2-methylpropenoate	CAS No.: 80-62-6 EC No.: 201-297-1 REACH: Index No.: 607-035-00-6	2,5-10%	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	[1]
phthalic anhydride	CAS No.: 85-44-9 EC No.: 201-607-5 REACH: Index No.: 607-009-00-4	<1%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1A, H317 Eye Dam. 1, H318 Resp. Sens. 1, H334 STOT SE 3, H335	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30°C) for at least 5 minutes and continue until irritation stops. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

▼ 4.2. Most important symptoms and effects, both acute and delayed

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact.

Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

Sensitisation: This product contains substances, which may produce an allergic reaction through inhalation. The allergic reaction typically takes place within an hour after exposure. The reaction results in an inflammatory reaction to the lungs.

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO₂).

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Avoid direct contact with spilled substances.

Avoid inhalation of vapours from spilled material.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 on "Disposal considerations" in regard of handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

▼ 7.1. Precautions for safe handling

Ground and bond container and receiving equipment.

Use explosion-proof [] equipment.

Use non-sparking tools.

Take action to prevent static discharges.

Because of the danger of self-ignition, any waste from the product, spray mist and soiled rags etc. are to be kept in a fire-proof place in air-tight containers, alternatively the waste is to be burned.

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.

The product should be tested for peroxide formation or discarded after 6 months.

Peroxide formation may be present anywhere in the container, including the sides, bottom, exterior and threaded cap. Peroxide formation in ppm concentrations may not be visually observable and must be identified through the use of appropriate testing procedures. If any of the following conditions exist, the material may be explosively unstable and will require stabilization prior to use:

1. Material appears to be degraded and or contaminated.
2. Material appears to be discolored.
3. Deterioration or distortion of storage container.
4. Thermal shock (sunlight).
5. Age of material exceeds recommended storage time.

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits.

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Take action to prevent static discharges.

Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Recommended storage material

Keep only in original packaging.

Storage temperature

Dry, cool and well ventilated

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

—
styrene

Long term exposure limit (8 hours) (ppm): 100

Long term exposure limit (8 hours) (mg/m³): 430

Short term exposure limit (15 minutes) (ppm): 250

Short term exposure limit (15 minutes) (mg/m³): 1080

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methyl methacrylate;methyl 2-methylprop-2-enoate;methyl 2-methylpropenoate

Long term exposure limit (8 hours) (ppm): 50

Long term exposure limit (8 hours) (mg/m³): 208

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Short term exposure limit (15 minutes) (ppm): 100
 Short term exposure limit (15 minutes) (mg/m³): 416

—
 phthalic anhydride

Long term exposure limit (8 hours) (mg/m³): 4
 Short term exposure limit (15 minutes) (mg/m³): 12

Annotations:

Sen = Capable of causing occupational asthma.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
 EH40/2005 Workplace exposure limits (Fourth Edition 2020).

▼ DNEL

Product/substance	styrene
DNEL	289 mg/m ³
Route of exposure	Inhalation
Duration	Short term – Systemic effects - Workers
Product/substance	styrene
DNEL	306 mg/m ³
Route of exposure	Inhalation
Duration	Short term – Local effects - Workers
Product/substance	styrene
DNEL	85 mg/m ³
Route of exposure	Inhalation
Duration	Long term – Systemic effects - Workers
Product/substance	styrene
DNEL	174,25 mg/m ³
Route of exposure	Inhalation
Duration	Short term – Systemic effects - General population
Product/substance	styrene
DNEL	182,75 mg/m ³
Route of exposure	Inhalation
Duration	Short term – Local effects - General population
Product/substance	styrene
DNEL	10,2 mg/m ³
Route of exposure	Inhalation
Duration	Long term – Systemic effects - General population
Product/substance	styrene
DNEL	406 mg/kg/day

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Route of exposure	Dermal
Duration	Long term – Systemic effects - Workers
Product/substance	styrene
DNEL	2,1 mg/kg/day
Route of exposure	Oral
Duration	Long term – Systemic effects - General population
Product/substance	styrene
DNEL	343 mg/kg/day
Route of exposure	Dermal
Duration	Long term – Systemic effects - General population
Product/substance	methyl methacrylate;methyl 2-methylprop-2-enoate;methyl 2-methylpropenoate
DNEL	40 mg/m ³
Route of exposure	Inhalation
Duration	Long term
Product/substance	methyl methacrylate;methyl 2-methylprop-2-enoate;methyl 2-methylpropenoate
DNEL	410 mg/m ³
Route of exposure	Inhalation
Duration	Short term
Product/substance	methyl methacrylate;methyl 2-methylprop-2-enoate;methyl 2-methylpropenoate
DNEL	205 mg/m ³
Route of exposure	Inhalation
Duration	Long term – Local effects

▼ PNEC

Product/substance	styrene
PNEC	0,028 mg/L
Route of exposure	Freshwater
Duration of Exposure	Single
Product/substance	styrene
PNEC	0,014 mg/L
Route of exposure	Marine water
Duration of Exposure	Single
Product/substance	styrene
PNEC	0,04 mg/L

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Route of exposure	Intermittent release
Duration of Exposure	Single
Product/substance	styrene
PNEC	0,614 mg/kg
Route of exposure	Freshwater sediment
Duration of Exposure	Single
Product/substance	styrene
PNEC	0,307 mg/kg
Route of exposure	Marine water sediment
Duration of Exposure	Single
Product/substance	styrene
PNEC	5 mg/L
Route of exposure	Sewage treatment plant
Duration of Exposure	Single
Product/substance	styrene
PNEC	0,2 mg/kg
Route of exposure	Soil
Duration of Exposure	Single

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Do not recirculate outlet air that contain the substances.

Hygiene measures

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.


Respiratory Equipment

Type	Class	Colour	Standards
A	Class 1 (low capacity)	Brown	EN14387




According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878


Skin protection

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn	-	-	

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0.4	> 480	EN374-2, EN374-3, EN388	

Eye protection

Type	Standards	
Safety glasses with side shields.	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Colourless

Odour / Odour threshold

Characteristic

pH

Testing not relevant or not possible due to nature of the product.

▼ Density (g/cm³)

1.1 (20 °C)

Kinematic viscosity

Testing not relevant or not possible due to nature of the product.

Particle characteristics

Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C)

Testing not relevant or not possible due to nature of the product.

Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

▼ Boiling point (°C)

145

▼ Vapour pressure

6 hPa (20 °C)

Relative vapour density

Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°C)

Testing not relevant or not possible due to nature of the product.

Data on fire and explosion hazards

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

▼ Flash point (°C)

31

Ignition (°C)

Testing not relevant or not possible due to nature of the product.

▼ Auto flammability (°C)

480

▼ Lower and upper explosion limit (% v/v)

1.2 - 8.9

Solubility

Solubility in water

Insoluble

n-octanol/water coefficient

Testing not relevant or not possible due to nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

Other physical and chemical parameters

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly reactive and can auto-polymerize as a result of internal peroxide accumulation. The peroxides formed in these reactions are extremely shock- and heat-sensitive.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

Avoid static electricity.

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance	styrene
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	>5000 mg/kgbw
Other information	
Product/substance	styrene

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Test method	
Species	Rat
Route of exposure	Dermal
Test	LD50
Result	>2000 mg/kgbw
Other information	
Product/substance	phthalic anhydride
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	4200 mg/kg
Other information	

Harmful if inhaled.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Long term effects

Reproductive toxicity: This product contains teratogenic substances, which may produce anomalies and/or developmental defects to the human offspring. Adverse effects include: death, growth retardation, congenital disorders, delayed mental development, and functional disorders. This product contains reprotoxic substances, which may harm the reproductive capacity. Adverse effects include: sterility, effects on the sexual function, lowered effective fertility and dysfunctional menstrual cycle.

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

Endocrine disrupting properties

No special

Other information

styrene has been classified by IARC as a group 2A carcinogen.

methyl methacrylate;methyl 2-methylprop-2-enoate;methyl 2-methylpropenoate has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

▼ 12.1. Toxicity

Product/substance	styrene
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	3,24 - 4,99 mg/L
Other information	
Product/substance	styrene
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	4,7 mg/L
Other information	
Product/substance	styrene
Test method	
Species	Daphnia
Compartment	
Duration	21 days
Test	NOEC
Result	1,01 mg/L
Other information	
Product/substance	styrene

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Test method	
Species	Daphnia
Compartment	
Duration	96 hours
Test	LC50
Result	9,5 mg/L
Other information	
Product/substance	styrene
Test method	
Species	Algae
Compartment	
Duration	96 hours
Test	EC50
Result	6,3 mg/L
Other information	

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

Product/substance	styrene
Test method	
Potential bioaccumulation	No data available
LogPow	2.95
BCF	No data available
Other information	

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

No special

12.7. Other adverse effects

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is not covered by regulations on dangerous waste.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

EWC code

07 02 99 Wastes not otherwise specified




Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es) Labels: 3 Classification code:	14.4 PG*	14.5 Env**	Other information
ADR	UN1866	RESIN SOLUTION	Class: 3 Labels: 3 Classification code: F1 	III	No	Limited quantities: 5 L Tunnel restriction code: (D/E) See below for additional information.
IMDG	UN1866	RESIN SOLUTION	Class: 3 Labels: 3 Classification code: F1 	III	No	Limited quantities: 5 L EmS: F-E S-E See below for additional information.
IATA	UN1866	RESIN SOLUTION	Class: 3 Labels: 3 Classification code: F1 	III	No	See below for additional information.

* Packing group

** Environmental hazards

▼ Additional information

Not dangerous goods according to ADR, IATA and IMDG.

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Restrictions for application

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

No specific requirements

SEVESO - Categories / dangerous substances

P5c - FLAMMABLE LIQUIDS, Qualifying quantity (lower-tier): 5.000 tonnes / (upper-tier): 50.000 tonnes

Additional information

Tactile warning.

If this product is sold in retail, it must be delivered with child-resistant fastening.

Sources

The Management of Health and Safety at Work Regulations 1999

The Health and Safety at Work etc. Act 1974 Regulations 2013.

Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

CLP Regulation (EC) No 1272/2008, as retained and amended in UK law.

EC-Regulation 1907/2006 (REACH), as amended by UK REACH Regulations SI 2019/758

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H225, Highly flammable liquid and vapour.

H226, Flammable liquid and vapour.

H302, Harmful if swallowed.

H304, May be fatal if swallowed and enters airways.

H315, Causes skin irritation.

H317, May cause an allergic skin reaction.

H318, Causes serious eye damage.

H319, Causes serious eye irritation.

H332, Harmful if inhaled.

H334, May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335, May cause respiratory irritation.

H361, Suspected of damaging fertility or the unborn child.

H372, Causes damage to organs through prolonged or repeated exposure.

H412, Harmful to aquatic life with long lasting effects.

▼ Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

▼ **Additional information**

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP).

The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

The classification of the substance/mixture in regard of physical hazards has been based on experimental data.

▼ **The safety data sheet is validated by**

H.A.B.

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en