RESINE PPO 807

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Reference number: POLYP376
Issue date: 9/5/2024 Revision date: 10/25/2024 Supersedes version of: 9/5/2024 Version: 1.1

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

1.1. Product identifier

Product form : Mixture
Product name : RESINE PPO 807
UFI : CMV1-103N-100X-VR74

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Unsaturated polyester resin, thixotropic and pre-accelerated

Title	Use descriptors
Uses in Coatings (3) (ES Ref.: ES - TR)	SU22, PROC3, PROC4, PROC5, PROC8a, PROC10, PROC11, ERC8e, ESVOC SPERC 8.3b.v1

Full text of use descriptors: see section 16

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Suter Kunststoffe AG
Aefligenstrasse 3
CH-3312 Fraubrunnen
T +41 (0)31 763 60 60 - F +41 (0)31 763 60 61

info@swiss-composite.ch www.swiss-composite.ch

1.4. Emergency telephone number

Suisse	Tox Info Suisse	Tel: 145	From Abroad +41 44 251 51 51

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Acute toxicity (inhalation:dust,mist) Category 4	H332
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Reproductive toxicity, Category 2	H361d
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335
Specific target organ toxicity – Repeated exposure, Category 1	H372
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Harmful if inhaled. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS02 GHS07 GHS08

Signal word (CLP) : Danger

Contains : styrene; 1,4-dihydroxybenzene; hydroquinone; quinol; 2-phenylpropene; α-methylstyrene; Cobalt bis(2-éthylhexanoate)

Hazard statements (CLP) : H226 - Flammable liquid and vapour.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.
H361d - Suspected of damaging the unborn child.
H372 - Causes damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P241 - Use explosion-proof electrical/ventilating/lighting equipment.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

EUH-statements : EUH208 - Contains Cobalt bis(2-éthylhexanoate)(136-52-7). May produce an allergic reaction.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
styrene substance with national workplace exposure limit(s) (AT, BE, BG, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, LT, LV, PL, PT, RO, SE, SI, SK)	CAS-No.: 100-42-5 EC-No.: 202-851-5 EC Index-No.: 601-026-00-0 REACH-no: 01-2119457861-32	35-50	Flam. Liq. 3, H226 Repr. 2, H361d Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) STOT RE 1, H372 Skin Irrit. 2, H315 Eye Irrit. 2, H319

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cobalt bis(2-éthylhexanoate)	CAS-No.: 136-52-7 EC-No.: 205-250-6 REACH-no: 01-2119524678-29	0,1≤C<0,3	Eye Irrit. 2, H319 Skin Sens. 1, H317 Repr. 1A, H360Fd Aquatic Acute 1, H400 Aquatic Chronic 3, H412

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Immediately rinse with water for a prolonged period while holding the eyelids wide open. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.

Explosion hazard : Vapours may form explosive mixture with air.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Storage temperature : < 30 °C

Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage area : Store away from heat.

Special rules on packaging : Store in a closed container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

styrene (100-42-5)	
United Kingdom - Occupational Exposure Limits	
Local name	Styrene
WEL TWA (OEL TWA) [1]	430 mg/m³
WEL TWA (OEL TWA) [2]	100 ppm

styrene (100-42-5)	
WEL STEL (OEL STEL)	1080 mg/m³
WEL STEL (OEL STEL) [ppm]	250 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Safety glasses

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves

Hand protection					
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**	**Standard**
	Viton	6 (> 480 minutes)	>0.4		EN ISO 374
	Neoprene rubber (HNBR)	5 (> 240 minutes)	>0.35		EN ISO 374
	Nitrile rubber (NBR)	6 (> 480 minutes)	>0.35		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

Respiratory protection			
Device	**Filter type**	**Condition**	**Standard**
Gas mask	Type A - High-boiling (>65 °C) organic compounds	Vapour protection	EN 14387

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Blue.
Appearance	:	Liquid.
Odour	:	characteristic.
Odour threshold	:	Not available
Melting point	:	-31 °C
Freezing point	:	Not available
Boiling point	:	145 °C
Flammability	:	Flammable liquid and vapour.
Explosive properties	:	Not applicable.
Lower explosion limit	:	1.1 vol %
Upper explosion limit	:	6.1 vol %
Flash point	:	31 °C
Auto-ignition temperature	:	490 °C
Decomposition temperature	:	
pH	:	Not available
Viscosity, kinematic	:	Not available
Viscosity, dynamic	:	530 cP
Solubility	:	Water:
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	4.7 hPa
Vapour pressure at 50°C	:	Not available
Density	:	≥ 1.03 – ≤ 1.16 g/cm³
Relative density	:	Not available
Relative vapour density at 20°C	:	3.6
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Harmful if inhaled.

RESINE PPO 807	
ATE CLP (dust,mist)	3 mg/l/4h

styrene (100-42-5)	
LD50 oral rat	5000 mg/kg Source: ECHA
LD50 oral	> 6000 mg/kg bodyweight Animal: hamster, Syrian, Animal sex: male
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Remarks on results: other:
LC50 Inhalation - Rat	10 – 20 mg/l
LC50 Inhalation - Rat (Vapours)	11.8 mg/l Source: ECHA

Cobalt bis(2-éthylhexanoate) (136-52-7)	
LD50 oral rat	3129 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), 95% CL: 1750 - 5000
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 2000 mg/kg

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

styrene (100-42-5)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Suspected of damaging the unborn child.
STOT-single exposure : May cause respiratory irritation.
STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

styrene (100-42-5)	
LOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight Animal: rat
LOAEC (inhalation, rat, vapour, 90 days)	0.21 mg/l air Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat
NOAEL (subchronic, oral, animal/male, 90 days)	10 mg/kg bodyweight Animal: mouse, Animal sex: male
STOT-repeated exposure	Causes damage to organs (hearing organs) through prolonged or repeated exposure.

Cobalt bis(2-éthylhexanoate) (136-52-7)	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.31 mg/l air Animal: rat
NOAEL (oral, rat, 90 days)	3 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

Aspiration hazard : Not classified

styrene (100-42-5)	
Viscosity, kinematic	0.77 mm²/s Temp.: 'other:' Parameter: 'kinematic viscosity (in mm²/s)' Remarks on result: 'other:'

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute) : Not classified
Hazardous to the aquatic environment, long–term (chronic) : Harmful to aquatic life with long lasting effects.

styrene (100-42-5)	
LC50 - Fish [1]	10 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	4.7 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	4.9 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	6.3 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	2.06 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	1.01 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Cobalt bis(2-éthylhexanoate) (136-52-7)	
LC50 - Fish [1]	22.32 mg/l Source: ECHA
EC50 - Crustacea [1]	5.89 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.654 mg/l Source: ECHA registration data

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

styrene (100-42-5)	
Partition coefficient n-octanol/water (Log Pow)	2.95 Source: HSDB,CHemIDplus

Cobalt bis(2-éthylhexanoate) (136-52-7)	
Partition coefficient n-octanol/water (Log Pow)	2.96 Source: ECHA

12.4. Mobility in soil

styrene (100-42-5)	
Surface tension	34 mN/m

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapours may accumulate in the container.

SECTION 14: Transport information

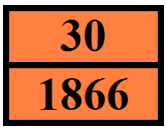
In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1866	UN 1866	UN 1866	UN 1866	UN 1866
14.2. UN proper shipping name				
RESIN SOLUTION	RESIN SOLUTION	Resin solution	RESIN SOLUTION	RESIN SOLUTION
Transport document description				
UN 1866 RESIN SOLUTION, 3, III, (D/E)	UN 1866 RESIN SOLUTION, 3, III	UN 1866 Resin solution, 3, III	UN 1866 RESIN SOLUTION, 3, III	UN 1866 RESIN SOLUTION, 3, III
14.3. Transport hazard class(es)				
3	3	3	3	3
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : F1

Limited quantities (ADR)	:	5l
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P001, IBC03, LP01, R001
Special packing provisions (ADR)	:	PP1
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T2
Portable tank and bulk container special provisions (ADR)	:	TP1
Tank code (ADR)	:	LGBF
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V12
Special provisions for carriage - Operation (ADR)	:	S2
Hazard identification number (Kemler No.)	:	30
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E
EAC code	:	•3Y

Transport by sea

Special provisions (IMDG)	:	223, 955
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001, LP01
Special packing provisions (IMDG)	:	PP1
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T2
Tank special provisions (IMDG)	:	TP1
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-E
Stowage category (IMDG)	:	A
Properties and observations (IMDG)	:	Miscibility with water depends upon the composition.

Air transport

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y344
PCA limited quantity max net quantity (IATA)	:	10L
PCA packing instructions (IATA)	:	355
PCA max net quantity (IATA)	:	60L
CAO packing instructions (IATA)	:	366
CAO max net quantity (IATA)	:	220L
Special provisions (IATA)	:	A3
ERG code (IATA)	:	3L

Inland waterway transport

Classification code (ADN)	:	F1
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E1
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	VE01
Number of blue cones/lights (ADN)	:	0

Rail transport

Classification code (RID)	:	F1
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Special packing provisions (RID)	:	PP1
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T2

Portable tank and bulk container special provisions (RID)	:	TP1
Tank codes for RID tanks (RID)	:	LGBF
Transport category (RID)	:	3
Special provisions for carriage – Packages (RID)	:	W12
Colis express (express parcels) (RID)	:	CE4
Hazard identification number (RID)	:	30

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
3(a)	RESINE PPO 807 ; styrene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	RESINE PPO 807 ; styrene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	RESINE PPO 807	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	styrene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

A chemical safety assessment has been carried out

For the following substances of this mixture a chemical safety assessment has been carried out:
styrene

SECTION 16: Other information

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
	Issue date	Modified	
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.2	Precautionary statements (CLP)	Modified	
2.2	Hazard statements (CLP)	Modified	
3	Composition/information on ingredients	Modified	

Abbreviations and acronyms:	
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
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration

Abbreviations and acronyms:	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
EUH208	Contains Cobalt bis(2-éthylhexanoate)(136-52-7). May produce an allergic reaction.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
Repr. 1A	Reproductive toxicity, Category 1A
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1

Full text of use descriptors	
ERC8e	Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
ESVOC SPERC 8.3b.v1	Uses in Coatings: Professional (SU22)
PROC10	Roller application or brushing

Full text of use descriptors	
PROC11	Non industrial spraying
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Flam. Liq. 3	H226	On basis of test data
Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Expert judgement
Repr. 2	H361d	Expert judgement
STOT SE 3	H335	Expert judgement
STOT RE 1	H372	Calculation method
Aquatic Chronic 3	H412	Expert judgement

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Annex to the safety data sheet

Product exposure scenario(s)	
ES Type	**ES title**
Worker	Use of resins / resin mixtures - Commercial use

RESINE PPO 807

Annex to the safety data sheet: Exposure scenario

Reference number: POLYP376 Product form: Mixture Physical state: Liquid

1. Exposure scenario ES - TR

	Use of resins / resin mixtures - Commercial use	
	ES Ref.: ES - TR ES Type: Worker Version: 1.0 Revision date: 11/19/2019	

Use descriptors	SU22 PROC3, PROC4, PROC5, PROC8a, PROC10, PROC11 ERC8e ESVOC SPERC 8.3b.v1
Processes, tasks, activities covered	Professional application of coatings and inks by brush or roller Professional application of coatings and inks by spraying Covers the use in coatings (paints, inks, adhesives, etc) within closed or contained systems including incidental exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application activities and film formation) and equipment cleaning, maintenance and associated laboratory activities Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.1. Contributing scenario controlling worker exposure (PROC3, PROC4, PROC5, PROC8a, PROC10, PROC11) (Concentration: ...;Duration: ...)

PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC10	Roller application or brushing
PROC11	Non industrial spraying

Product characteristics	
Physical form of product	Liquid
Concentration of substance in product	≤ 50 %

Operational conditions		
Amounts used	Daily amount per site	≤ 483 t/d
Frequency and duration of use	Covers frequency up to: 5 days per week	
	Covers daily exposures up to 8 hours	
	Avoid carrying out operation for more than 4 hours	PROC11
	Avoid carrying out operation for more than 1 hour	PROC8a

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Provide a good standard of controlled ventilation (5 to 10 air changes per hour)	

Risk Management Measures		
Organisational measures to prevent/limit releases, dispersion and exposure	Dispose of waste or used sacks/containers according to local regulations	
	Use tank pumps or carefully empty the container.	PROC5
	Close container tightly after use	PROC5
	Keep away people who are not involve by the operation.	PROC11
Conditions and measures related to personal protection, hygiene and health evaluation	Use long handled brushes and rollers.	PROC10
	Wear suitable gloves (tested to EN374) and eye protection	
	Wear a respirator conforming to EN140.	PROC4, PROC5, PROC10, PROC11
	Use suitable eye protection	
	For further information refer to section 8: "Exposure controls/personal protection"	

2.2. Contributing scenario controlling environmental exposure (ERC8e, ESVOC SPERC 8.3b.v1)

ERC8e	Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
ESVOC SPERC 8.3b.v1	Uses in Coatings: Professional (SU22)

Product characteristics	
Physical form of product	Liquid
Concentration of substance in product	≤ 50 %

Operational conditions		
Amounts used	Daily amount per site	≤ 483 t/d
Frequency and duration of use	Continuous release	< 300 days/yr

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Provide onsite wastewater treatment.	≈ 91.9
	Ensure all waste water is collected and treated via a WWTP	
Organisation measures to prevent/limit release from site	Prevent environmental discharge consistent with regulatory requirements	

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1	Datas of styrene's exposition values.

Long-term - systemic effects	
DNEL	Inhalation: Dermal:

Long-term - systemic effects						
Contributing scenario	**inhalation exposure**	**RCR**	**dermal exposure**	**RCR**	**Sum RCR**	**Assessment method**
PROC3, PROC4, PROC5, PROC8a, PROC10, PROC11 (Concentration: ..,Duration: ...)	≈ 85 mg/kg bw/day	≈ 0.5	≈ 406 mg/kg bw/day	≈ 0.0092	≈ 0.509	Inhalation: EASY TRA v4.1 Dermal: EASY TRA v4.1

3.2. Environment

Information for contributing exposure scenario	
2.2	Datas of styrene's exposition values.

Environmental exposure	Unit	Exposure estimation	PNEC	RCR	Assessment method
Freshwater		≈ 0.028		≈ 0.016	EASY TRA v4.1
Marine water		≈ 0.014		≈ 0.003	EASY TRA v4.1
Freshwater sediment		≈ 0.614		≈ 0.016	EASY TRA v4.1
Marine water sediment		≈ 0.307		≈ 0.003	EASY TRA v4.1
Soil		≈ 0.2		≈ 0.12	EASY TRA v4.1

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Ensure that there is a suitable ventilation system. Wear suitable gloves (tested to EN374) and eye protection

4.2. Environment

Guidance - Environment	Ensure all waste water is collected and treated via a WWTP

Additional good practice advice beyond the REACH CSA

Additional good practice advice	Training staff on good practice. Assumes a good basic standard of occupational hygiene is implemented