

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.09.2015

Version number 4

Revision: 29.09.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**Trade name: **PS MP reiniger**

Article number: P900-00035

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

No further relevant information available.

Application of the substance / the mixture

See our technical datasheet for application details of this product.

Degreaser

Thinner, Diluent

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Poly-Service BV, Hoogeveenweg 83, NL 2913 LV Nieuwerkerk a/d IJssel

Tel: +31 180 314777, Fax: +31 180 317847

E-mail: info@polyservice.nl

Further information obtainable from: Research and Development.

1.4 Emergency telephone number: Poly-Service BV, Tel: +31 180 314777, E-mail: info@polyservice.nl**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS07

STOT SE 3 H336 May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02 GHS07

Signal word Warning

Hazard-determining components of labelling:

1-methoxy-2-propanol

Hazard statements

H226 Flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

Precautionary statements

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

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Chemical characterisation: Mixtures**

Description: Mixture of substances listed below with nonhazardous additions.

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· Dangerous components:			
CAS: 107-98-2 EINECS: 203-539-1 Index number: 603-064-00-3 Reg.nr.: 01-2119457435-35	1-methoxy-2-propanol	⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	50-100%
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7 Reg.nr.: 01-2119475791-29	2-methoxy-1-methylethyl acetate	⚠ Flam. Liq. 3, H226	10-25%

· Additional information: For the wording of the listed risk phrases refer to section 16.

* **SECTION 4: First aid measures**· **4.1 Description of first aid measures**

- General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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

- Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· **5.3 Advice for firefighters**

- Protective equipment: No special measures required.

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

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage· **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· **7.2 Conditions for safe storage, including any incompatibilities**

· Storage:

· Requirements to be met by storerooms and receptacles: No special requirements.

· Information about storage in one common storage facility: Not required.

· Further information about storage conditions: Keep container tightly sealed.

· **7.3 Specific end use(s)** No further relevant information available.**SECTION 8: Exposure controls/personal protection**

- Additional information about design of technical facilities: No further data; see item 7.

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8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

107-98-2 1-methoxy-2-propanol

IOELV	Short-term value: 568 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm Skin
-------	---------------------------------------------------------------------------------------------------------------

108-65-6 2-methoxy-1-methylethyl acetate

IOELV	Short-term value: 550 mg/m ³ , 100 ppm Long-term value: 275 mg/m ³ , 50 ppm Skin
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· Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Nitrile rubber, NBR

Recommended thickness of the material: $\geq 0,3$ mm

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).

· Not suitable are gloves made of the following materials:

Leather gloves

Strong material gloves

· Eye protection: Tightly sealed goggles

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

· General Information

· Appearance:

Form:	Liquid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not determined.

· pH-value at 20 °C: 7

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	120 °C

· Flash point: 38 °C (DIN 51758)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 270 °C

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

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· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1,5 Vol %
Upper:	20,0 Vol %
· Vapour pressure at 20 °C:	12 hPa
· Density at 20 °C:	0,963 g/cm ³ (DIN 51757, ASTM D 1298)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic at 20 °C:	100 mPas (Brookfield, ASTM D1544)
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	100,0 %
VOC (2004/42/EC):	100,00 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
 - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
 - Acute toxicity
 - Primary irritant effect:
 - Skin corrosion/irritation Based on available data, the classification criteria are not met.
 - Serious eye damage/irritation Based on available data, the classification criteria are not met.
 - Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
 - CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
 - 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 Based on available data, the classification criteria are not met.
 - STOT-single exposure
 - May cause drowsiness or dizziness.
 - STOT-repeated exposure Based on available data, the classification criteria are not met.
 - Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- 12.1 Toxicity
 - Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes:
 - Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
 - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 12.5 Results of PBT and vPvB assessment
 - PBT: Not applicable.
 - vPvB: Not applicable.

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- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- European waste catalogue

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances

- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN-Number · ADR, RID, ADN, IMDG, IATA 	UN1993
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, RID, ADN · IMDG, IATA 	1993 FLAMMABLE LIQUID, N.O.S. (1-METHOXY-2-PROPANOL, 2-methoxy-1-methylethyl acetate) FLAMMABLE LIQUID, N.O.S. (1-METHOXY-2-PROPANOL, 2-methoxy-1-methylethyl acetate)
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, RID, ADN · Class · Label 	3 (F1) Flammable liquids. 3
<ul style="list-style-type: none"> · IMDG, IATA · Class · Label 	3 Flammable liquids. 3
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, RID, ADN, IMDG, IATA 	III
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: 	No
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: 	Warning: Flammable liquids. 30 F-E, S-E
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR, RID, ADN · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code 	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 D/E
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN 1993 FLAMMABLE LIQUID, N.O.S. (1-METHOXY-2-PROPANOL, 2-METHOXY-1-METHYLETHYL ACETATE), 3, III

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* **SECTION 15: Regulatory information**· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t
- National regulations:
- Technical instructions (air):

Class	Share in %
NK	100,0

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
- Department issuing MSDS: Research and Development
- Contact: G. Lok (tel +31 0180 314777, e-mail info@polyservice.nl)
- Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids, Hazard Category 3
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
- Sources: Literature data and/or investigation reports are available through the manufacturer.
- * Data compared to the previous version altered.

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

· **1.1 Product identifier**

· Trade name: **PS Poly-Pol PS 28**

· Article number: P282-00000

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

No further relevant information available.

· Application of the substance / the mixture

See our technical datasheet for application details of this product.

Polyester resin

· **1.3 Details of the supplier of the safety data sheet**

· Manufacturer/Supplier:

Poly-Service BV, Hoogeveenweg 83, NL 2913 LV Nieuwerkerk a/d IJssel

Tel: +31 180 314777, Fax: +31 180 317847

E-mail: info@polyservice.nl

· Further information obtainable from: Research and Development.

· **1.4 Emergency telephone number:** Poly-Service BV, Tel: +31 180 314777, E-mail: info@polyservice.nl

* **SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**

· Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS08 health hazard

Repr. 2 H361d Suspected of damaging the unborn child.

STOT RE 1 H372 Causes damage to the hearing organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

· **2.2 Label elements**

· Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS02 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labelling:
styrene

· Hazard statements

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H361d Suspected of damaging the unborn child.

H335 May cause respiratory irritation.

H372 Causes damage to the hearing organs through prolonged or repeated exposure.

· Precautionary statements

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

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Chemical characterisation: Mixtures**

- Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 100-42-5	styrene	25-50%
EINECS: 202-851-5	⚠ Flam. Liq. 3, H226; ⚠ Repr. 2, H361d; STOT RE 1, H372; ⚠ Acute Tox. 4, H332;	
Index number: 601-026-00-0	Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
Reg.nr.: 01-2119457861-32		

- Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures****General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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

- Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

5.3 Advice for firefighters

- Protective equipment: Mouth respiratory protective device.

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

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities

- Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep container tightly sealed.
- 7.3 Specific end use(s)** No further relevant information available.

* **SECTION 8: Exposure controls/personal protection**

- Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- DNEL (Derived No Effect Level) for workers

100-42-5 styrene

Dermal	Long-term - systemic effects, worker	406 mg/kg bw/day (Worker)
Inhalative	Acute - systemic effects, worker	289 mg/m ³ (Worker)
	Acute - local effects, worker	306 mg/m ³ (Worker)
	Long-term - systemic effects, worker	85 mg/m ³ (Worker)

- DNEL (Derived No Effect Level) for the general population

100-42-5 styrene

Oral	Long-term - systemic effects, general population	2,1 mg/kg bw/day (General population)
Dermal	Long-term - systemic effects, general population	343 mg/kg bw/day (General population)
Inhalative	Acute - systemic effects, general population	174,25 mg/m ³ (General population)
	Acute - local effects, general population	182,75 mg/m ³ (General population)
	Long-term - systemic effects, general population	10,2 mg/m ³ (General population)

- PNEC (Predicted No Effect Concentration) values

100-42-5 styrene

Aquatic compartment - freshwater	0,028 mg/l (Sediment freshwater)
Aquatic compartment - marine water	0,0028 mg/l (Marine water)
Aquatic compartment - water, intermittent releases	0,04 mg/l (Intermittent release water)
Aquatic compartment - sediment in freshwater	0,0614 mg/kg sed dw (Sediment freshwater)
Aquatic compartment - sediment in marine water	0,0614 mg/kg sed dw (Sediment marine water)
Terrestrial compartment - soil	0,2 mg/kg dw (Soil)
Sewage treatment plant	5 mg/l (stp)

- Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

- Personal protective equipment:
- General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
- Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- Protection of hands:
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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- Butyl rubber, BR
- Fluorocarbon rubber (Viton)
- Recommended thickness of the material: $\geq 0,3$ mm
- Penetration time of glove material
 - The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).
- Not suitable are gloves made of the following materials:
 - Leather gloves
 - Strong material gloves
- Eye protection: Tightly sealed goggles

* **SECTION 9: Physical and chemical properties**

· 9.1 Information on basic physical and chemical properties · General Information · Appearance: <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Form:</td> <td>Fluid</td> </tr> <tr> <td>Colour:</td> <td>According to product specification</td> </tr> <tr> <td>Odour:</td> <td>Characteristic</td> </tr> <tr> <td>Odour threshold:</td> <td>Not determined.</td> </tr> </table>		Form:	Fluid	Colour:	According to product specification	Odour:	Characteristic	Odour threshold:	Not determined.
Form:	Fluid								
Colour:	According to product specification								
Odour:	Characteristic								
Odour threshold:	Not determined.								
· pH-value at 20 °C:	7								
· Change in condition <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Melting point/Melting range:</td> <td>Undetermined.</td> </tr> <tr> <td>Boiling point/Boiling range:</td> <td>145 °C</td> </tr> </table>	Melting point/Melting range:	Undetermined.	Boiling point/Boiling range:	145 °C					
Melting point/Melting range:	Undetermined.								
Boiling point/Boiling range:	145 °C								
· Flash point:	34 °C (Pensky Martens, ASTM D93)								
· Flammability (solid, gaseous):	Not applicable.								
· Ignition temperature:	480 °C								
· Decomposition temperature:	Not determined.								
· Self-igniting:	Product is not selfigniting.								
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.								
· Explosion limits: <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Lower:</td> <td>1,2 Vol %</td> </tr> <tr> <td>Upper:</td> <td>8,9 Vol %</td> </tr> </table>	Lower:	1,2 Vol %	Upper:	8,9 Vol %					
Lower:	1,2 Vol %								
Upper:	8,9 Vol %								
· Vapour pressure at 20 °C:	6 hPa								
· Density at 20 °C:	1,1 g/cm ³ (DIN 51757, ASTM D 1298)								
· Relative density	Not determined.								
· Vapour density	Not determined.								
· Evaporation rate	Not determined.								
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.								
· Partition coefficient (n-octanol/water):	Not determined.								
· Viscosity: <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Dynamic at 20 °C:</td> <td>1500 mPas (Brookfield, ASTM D1544)</td> </tr> <tr> <td>Kinematic:</td> <td>Not determined.</td> </tr> </table>	Dynamic at 20 °C:	1500 mPas (Brookfield, ASTM D1544)	Kinematic:	Not determined.					
Dynamic at 20 °C:	1500 mPas (Brookfield, ASTM D1544)								
Kinematic:	Not determined.								
· Solvent content: <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Organic solvents:</td> <td>35,0 %</td> </tr> <tr> <td>VOC (2004/42/EC):</td> <td>35,00 %</td> </tr> </table>	Organic solvents:	35,0 %	VOC (2004/42/EC):	35,00 %					
Organic solvents:	35,0 %								
VOC (2004/42/EC):	35,00 %								
· 9.2 Other information	No further relevant information available.								

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
 - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.

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- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

* **SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- Acute toxicity
- LD/LC50 values relevant for classification:

Components	Type	Value	Species
100-42-5 styrene			
Oral	LD50	5000 mg/kg	(Rat)

- Primary irritant effect:
- Skin corrosion/irritation
Causes skin irritation.
- Serious eye damage/irritation
Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- 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 the unborn child.
- STOT-single exposure
May cause respiratory irritation.
- STOT-repeated exposure
Causes damage to the hearing organs through prolonged or repeated exposure.
- Aspiration hazard Based on available data, the classification criteria are not met.

* **SECTION 12: Ecological information**

- **12.1 Toxicity**
- Aquatic toxicity: No further relevant information available.

Type of test	Effective concentration	Method	Assessment
100-42-5 styrene			
Oral	EC50	5,1 mg/l	(Daphnia magna)
Inhalative	LC50/4 h	24 mg/l	(Rat)
	LC50/96 h	25 mg/l	(Lepomis macrochirus)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- Additional ecological information:
- General notes:
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- PBT: Not applicable.
- vPvB: Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

* **SECTION 14: Transport information**

14.1 UN-Number	
ADR, RID, ADN, IMDG, IATA	UN1866
14.2 UN proper shipping name	
ADR/RID/ADN	1866 RESIN SOLUTION

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· IMDG, IATA	RESIN SOLUTION
· 14.3 Transport hazard class(es)	
· ADR/RID/ADN	
· Class	3 (F1) Flammable liquids.
· Label	3
· IMDG, IATA	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	
· ADR, RID, ADN, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	39
· EMS Number:	F-E, S-D
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1866 RESIN SOLUTION, 3, III

* **SECTION 15: Regulatory information**· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t
- National regulations:
- Technical instructions (air):

Class	Share in %
NK	35,0

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
- H226 Flammable liquid and vapour.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H361d Suspected of damaging the unborn child.

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H372 Causes damage to the hearing organs through prolonged or repeated exposure.

- **Department issuing MSDS: Research and Development**

- **Contact: G. Lok (tel +31 0180 314777, e-mail info@polyservice.nl)**

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ElNECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

- **Sources: Literature data and/or investigation reports are available through the manufacturer.**

- *** Data compared to the previous version altered.**

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

1.1 Product identifier

Trade name: **PS MEK PEROXIDE**

Article number: P291-99999

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

No further relevant information available.

Application of the substance / the mixture

See our technical datasheet for application details of this product.

Catalyst

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Poly-Service BV, Hoogeveenweg 83, NL 2913 LV Nieuwerkerk a/d IJssel

Tel: +31 180 314777, Fax: +31 180 317847

E-mail: info@polyservice.nl

Further information obtainable from: Research and Development.

1.4 Emergency telephone number: Poly-Service BV, Tel: +31 180 314777, E-mail: info@polyservice.nl

*** SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Org. Perox. CD H242 Heating may cause a fire.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02 GHS05 GHS07

Signal word Danger

Hazard-determining components of labelling:

2-Butanone, peroxide

Hazard statements

H242 Heating may cause a fire.

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H314 Causes severe skin burns and eye damage.

Precautionary statements

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

P102 Keep out of reach of children.

P103 Read label before use.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P405 Store locked up.

P410 Protect from sunlight.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- Labelling of packages where the contents do not exceed 125 ml
- Hazard pictograms



GHS02 GHS05 GHS07

- Signal word Danger
- Hazard-determining components of labelling:
2-Butanone, peroxide
- Hazard statements
H314 Causes severe skin burns and eye damage.
- Precautionary statements
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

*** SECTION 3: Composition/information on ingredients**

- 3.2 Chemical characterisation: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 1338-23-4 EC number: 700-954-4 Reg.nr.: 01-2119514691-43	2-Butanone, peroxide ⚠ Org. Perox. CD, H242; ⚠ Acute Tox. 3, H331; ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312	25-50%
CAS: 78-93-3 EINECS: 201-159-0 Index number: 606-002-00-3 Reg.nr.: 01-2119457290-43	butanone ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	1,0-2,5%

- Additional information: For the wording of the listed risk phrases refer to section 16.

*** SECTION 4: First aid measures**

- 4.1 Description of first aid measures
- General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

*** SECTION 5: Firefighting measures**

- 5.1 Extinguishing media
- Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.

- **5.3 Advice for firefighters**

- Protective equipment: Mouth respiratory protective device.

* **SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

* **SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Keep respiratory protective device available.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- Requirements to be met by storerooms and receptacles: No special requirements.

- Information about storage in one common storage facility: Not required.

- Further information about storage conditions: Keep container tightly sealed.

- **7.3 Specific end use(s)** No further relevant information available.

* **SECTION 8: Exposure controls/personal protection**

- Additional information about design of technical facilities: No further data; see item 7.

- **8.1 Control parameters**

- Ingredients with limit values that require monitoring at the workplace:

78-93-3 butanone

IOELV Short-term value: 900 mg/m³, 300 ppm

Long-term value: 600 mg/m³, 200 ppm

- DNEL (Derived No Effect Level) for workers

1338-23-4 2-Butanone, peroxide

Dermal Long-term - systemic effects, worker 1,08 mg/kg bw/day (Worker)

Inhalative Long-term - systemic effects, worker 1,9 mg/m³ (Worker)

- DNEL (Derived No Effect Level) for the general population

1338-23-4 2-Butanone, peroxide

Oral Long-term - systemic effects, general population 0,27 mg/kg bw/day (General population)

Dermal Long-term - systemic effects, general population 0,54 mg/kg bw/day (Worker)

Inhalative Long-term - systemic effects, general population 0,41 mg/m³ (General population)

- PNEC (Predicted No Effect Concentration) values

1338-23-4 2-Butanone, peroxide

Aquatic compartment - freshwater 0,0056 mg/l (Freshwater)

Aquatic compartment - marine water 0,00056 mg/l (Marine water)

Aquatic compartment - water, intermittent releases 0,056 mg/l (Intermittent release water)

Aquatic compartment - sediment in freshwater 0,019 mg/kg sed dw (Sediment freshwater)

Aquatic compartment - sediment in marine water 0,0019 mg/kg sed dw (Sediment marine water)

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Terrestrial compartment - soil	0,00231 mg/kg dw (Soil)
Sewage treatment plant	1,2 mg/l (stp)

· Additional information: The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· Personal protective equipment:

· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Not suitable are gloves made of the following materials:

Leather gloves

Strong material gloves

· Eye protection: Tightly sealed goggles

* **SECTION 9: Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· General Information

· Appearance:

Form: Fluid

Colour: Colourless

· Odour: Characteristic

· Odour threshold: Not determined.

· pH-value at 20 °C: 5

· Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 81 °C

· Flash point: 75 °C (Pensky Martens, ASTM D93)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 555 °C

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.
May cause fire.

· Explosion limits:

Lower: Not determined.

Upper: Not determined.

· Vapour pressure: Not determined.

· Density at 20 °C: 1,139 g/cm³ (DIN 51757, ASTM D 1298)

· Relative density: Not determined.

· Vapour density: Not determined.

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· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic at 20 °C:	20 mPas (Brookfield, ASTM D1544)
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	2,0 %
Water:	2,0 %
VOC (2004/42/EC):	2,00 %
· 9.2 Other information	No further relevant information available.
· Additional information	
Decomposition temperature	SADT 60 °C
Active oxygen content	8,9 %
Peroxide content	33 %

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
 - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

* **SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
 - Acute toxicity
 - Harmful if swallowed, in contact with skin or if inhaled.
 - LD/LC50 values relevant for classification:

Components	Type	Value	Species
Oral	LD50	1493 mg/kg	
Dermal	LD50	15,9 mg/kg	

- Primary irritant effect:
 - Skin corrosion/irritation
 - Causes severe skin burns and eye damage.
 - Serious eye damage/irritation
 - Causes serious eye damage.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
 - 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 Based on available data, the classification criteria are not met.
 - STOT-single exposure Based on available data, the classification criteria are not met.
 - STOT-repeated exposure Based on available data, the classification criteria are not met.
 - Aspiration hazard Based on available data, the classification criteria are not met.

* **SECTION 12: Ecological information**

- **12.1 Toxicity**
 - Aquatic toxicity: No further relevant information available.

Type of test	Effective concentration	Method	Assessment
Inhalative	LC50/4 h	8,96 mg/l	

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- Additional ecological information:
- General notes:
 - Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

· **12.5 Results of PBT and vPvB assessment**

· PBT: Not applicable.

· vPvB: Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

* **SECTION 13: Disposal considerations**

· **13.1 Waste treatment methods**

· Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

HP 3 | Flammable

· Uncleaned packaging:

· Recommendation: Disposal must be made according to official regulations.

* **SECTION 14: Transport information**

· 14.1 UN-Number · ADR, RID, ADN, IMDG, IATA	UN3105
· 14.2 UN proper shipping name · ADR/RID/ADN · IMDG · IATA	3105 ORGANIC PEROXIDE TYPE D, LIQUID ORGANIC PEROXIDE TYPE D, LIQUID Organic peroxide type D, liquid
· 14.3 Transport hazard class(es) · ADR/RID/ADN · Class · Label	5.2 (P1) Organic peroxides. 5.2
· IMDG, IATA · Class · Label	5.2 Organic peroxides. 5.2
· 14.4 Packing group · ADR, RID, ADN, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user · Danger code (Kemler): · Stowage Category · Stowage Code · Segregation Code	Warning: Organic peroxides. - D SW1 Protected from sources of heat. SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis. SG72 See 7.2.6.3.2.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN · Limited quantities (LQ) · Excepted quantities (EQ)	125 ml Code: E0 Not permitted as Excepted Quantity
· Transport category · Tunnel restriction code	2 D
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	125 ml Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 3105 ORGANIC PEROXIDE TYPE D, LIQUID, 5.2

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* **SECTION 15: Regulatory information**• **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P6b SELF-REACTIVE SUBSTANCES AND MIXTURES AND ORGANIC PEROXIDES
- Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- National regulations:
- Technical instructions (air):

Class	Share in %
Wasser	2,0
NK	2,0

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• **Relevant phrases**

H225 Highly flammable liquid and vapour.
H242 Heating may cause a fire.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H336 May cause drowsiness or dizziness.

• **Department issuing MSDS: Research and Development**• **Contact: G. Lok (tel +31 0180 314777, e-mail info@polyservice.nl)**• **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Org. Perox. CD: Organic Peroxides, Types C, D
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 3: Acute toxicity, Hazard Category 3
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

• **Sources: Literature data and/or investigation reports are available through the manufacturer.**• * **Data compared to the previous version altered.**

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

· **1.1 Product identifier**

· Trade name: **PS BP-pasta**

· Article number: P290-99999

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

No further relevant information available.

· Application of the substance / the mixture

See our technical datasheet for application details of this product.

Catalyst

· **1.3 Details of the supplier of the safety data sheet**

· Manufacturer/Supplier:

Poly-Service BV, Hoogeveenweg 83, NL 2913 LV Nieuwerkerk a/d IJssel

Tel: +31 180 314777, Fax: +31 180 317847

E-mail: info@polyservice.nl

· Further information obtainable from: Research and Development.

· **1.4 Emergency telephone number:** Poly-Service BV, Tel: +31 180 314777, E-mail: info@polyservice.nl

* **SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**

· Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Org. Perox. EF H242 Heating may cause a fire.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

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

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

· **2.2 Label elements**

· Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS02 GHS07

· Signal word Warning

· Hazard-determining components of labelling:

dibenzoyl peroxide

· Hazard statements

H242 Heating may cause a fire.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

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

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P410 Protect from sunlight.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients**3.2 Chemical characterisation: Mixtures**

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 94-36-0 EINECS: 202-327-6 Index number: 617-008-00-0 Reg.nr.: 01-2119511472-50	dibenzoyl peroxide ⚠️ ⚠️ Org. Perox. B, H241; ⚠️ Eye Irrit. 2, H319; Skin Sens. 1, H317	25-50%
CAS: 670241-72-2 ELINCS: 447-010-5 Reg.nr.: 01-00000018876-55	isononylbenzoat ⚠️ Aquatic Chronic 2, H411	10-25%
CAS: 9038-95-3	polyalkylglycolmonobutylether ⚠️ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	2,5-10%

Additional information: For the wording of the listed risk phrases refer to section 16.

*** SECTION 4: First aid measures****4.1 Description of first aid measures**

General information: Immediately remove any clothing soiled by the product.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**5.2 Special hazards arising from the substance or mixture** No further relevant information available.**5.3 Advice for firefighters**

Protective equipment: No special measures required.

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

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

*** SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Keep receptacles tightly sealed.

Store in cool, dry place in tightly closed receptacles.

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection: Keep ignition sources away - Do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

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- Further information about storage conditions: Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- **8.1 Control parameters**
- Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- Personal protective equipment:
- General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- Protection of hands:
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Nitrile rubber, NBR
Recommended thickness of the material: $\geq 0,3$ mm
- Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).
- Not suitable are gloves made of the following materials:
Leather gloves
Strong material gloves
- Eye protection: Tightly sealed goggles

* **SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Solid
Colour:	According to product specification
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value at 20 °C:	6
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	May cause fire.
· Ignition temperature:	370 °C
· Decomposition temperature:	Not determined.

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· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard. May cause fire.
· Explosion limits: Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	1 hPa
· Density at 20 °C:	1,15 g/cm ³ (DIN 51757, ASTM D 1298)
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: Dynamic at 20 °C:	20000 mPas (Brookfield, ASTM D1544)
Kinematic:	Not applicable.
· Solvent content: Organic solvents:	0,0 %
VOC (2004/42/EC):	0,00 %
Solids content:	45,0 %
· 9.2 Other information	No further relevant information available.
· Additional information Decomposition temperature	SADT 50 oC
Active oxygen content	3,3 %

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
 - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
 - Acute toxicity
 - LD/LC50 values relevant for classification:

Components	Type	Value	Species
Oral LD50		13158 mg/kg	

- Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation
 - Causes serious eye irritation.
- Respiratory or skin sensitisation
 - May cause an allergic skin reaction.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
 - 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 Based on available data, the classification criteria are not met.
 - STOT-single exposure Based on available data, the classification criteria are not met.
 - STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

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SECTION 12: Ecological information

- **12.1 Toxicity**
- Aquatic toxicity: No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- Ecotoxicological effects:
- Remark: Harmful to fish
- Additional ecological information:
- General notes:
- Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Harmful to aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- PBT: Not applicable.
- vPvB: Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

*** SECTION 14: Transport information**

· 14.1 UN-Number	
· ADR, RID, ADN, IMDG, IATA	UN3108
· 14.2 UN proper shipping name	
· ADR/RID/ADN	3108 ORGANIC PEROXIDE TYPE E, SOLID
· IMDG, IATA	ORGANIC PEROXIDE TYPE E, SOLID
· 14.3 Transport hazard class(es)	
· ADR/RID/ADN	
· Class	5.2 (P1) Organic peroxides.
· Label	5.2
· IMDG	
· Class	5.2 Organic peroxides.
· Label	5.2
· IATA	
· Class	Void
· Label	5.2
· 14.4 Packing group	
· ADR, RID, ADN, IMDG, IATA	Void
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Organic peroxides.
· Danger code (Kemler):	-
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D

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· IMDG	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 3108 ORGANIC PEROXIDE TYPE E, SOLID, 5.2

* **SECTION 15: Regulatory information**

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

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES
- Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
H241 Heating may cause a fire or explosion.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
- Department issuing MSDS: Research and Development
- Contact: G. Lok (tel +31 0180 314777, e-mail info@polyservice.nl)
- Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organisation
ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Org. Perox. B: Organic Peroxides, Type B
Org. Perox. EF: Organic Peroxides, Types E, F
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3
- Sources: Literature data and/or investigation reports are available through the manufacturer.
- * Data compared to the previous version altered.

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**Trade name: **PS Poly-plamuur**

Article number: P261-00000

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

No further relevant information available.

Application of the substance / the mixture

See our technical datasheet for application details of this product.

Filler and surfacer

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Poly-Service BV, Hoogeveenweg 83, NL 2913 LV Nieuwerkerk a/d IJssel

Tel: +31 180 314777, Fax: +31 180 317847

E-mail: info@polyservice.nl

Further information obtainable from: Research and Development.

1.4 Emergency telephone number: Poly-Service BV, Tel: +31 180 314777, E-mail: info@polyservice.nl**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS08 health hazard

Repr. 2 H361d Suspected of damaging the unborn child.

STOT RE 1 H372 Causes damage to the hearing organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02 GHS07 GHS08

Signal word Danger

Hazard-determining components of labelling:
styrene

Hazard statements

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H361d Suspected of damaging the unborn child.

H372 Causes damage to the hearing organs through prolonged or repeated exposure.

Precautionary statements

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

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **2.3 Other hazards**
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 100-42-5	styrene	10-25%
EINECS: 202-851-5	⚠ Flam. Liq. 3, H226; ⚠ Repr. 2, H361d; STOT RE 1, H372; ⚠ Acute Tox. 4, H332;	
Index number: 601-026-00-0	Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
Reg.nr.: 01-2119457861-32		

· Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **5.3 Advice for firefighters**
- Protective equipment: Mouth respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- **8.1 Control parameters**
- Ingredients with limit values that require monitoring at the workplace:
 The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNEL (Derived No Effect Level) for workers		
100-42-5 styrene		
Dermal	Long-term - systemic effects, worker	406 mg/kg bw/day (Worker)
Inhalative	Acute - systemic effects, worker	289 mg/m ³ (Worker)
	Acute - local effects, worker	306 mg/m ³ (Worker)
	Long-term - systemic effects, worker	85 mg/m ³ (Worker)
· DNEL (Derived No Effect Level) for the general population		
100-42-5 styrene		
Oral	Long-term - systemic effects, general population	2,1 mg/kg bw/day (General population)
Dermal	Long-term - systemic effects, general population	343 mg/kg bw/day (General population)
Inhalative	Acute - systemic effects, general population	174,25 mg/m ³ (General population)
	Acute - local effects, general population	182,75 mg/m ³ (General population)
	Long-term - systemic effects, general population	10,2 mg/m ³ (General population)
· PNEC (Predicted No Effect Concentration) values		
100-42-5 styrene		
Aquatic compartment - freshwater		0,028 mg/l (Sediment freshwater)
Aquatic compartment - marine water		0,0028 mg/l (Marine water)
Aquatic compartment - water, intermittent releases		0,04 mg/l (Intermittent release water)
Aquatic compartment - sediment in freshwater		0,0614 mg/kg sed dw (Sediment freshwater)
Aquatic compartment - sediment in marine water		0,0614 mg/kg sed dw (Sediment marine water)
Terrestrial compartment - soil		0,2 mg/kg dw (Soil)
Sewage treatment plant		5 mg/l (stp)

- Additional information: The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- Personal protective equipment:
- General protective and hygienic measures:
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Store protective clothing separately.
 Avoid contact with the eyes and skin.
- Respiratory protection:
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- Protection of hands:
 Protective gloves
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- Material of gloves
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
 Butyl rubber, BR

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Fluorocarbon rubber (Viton)

Recommended thickness of the material: $\geq 0,3$ mm

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).

· Not suitable are gloves made of the following materials:

Leather gloves

Strong material gloves

· Eye protection: Tightly sealed goggles

SECTION 9: Physical and chemical properties**· 9.1 Information on basic physical and chemical properties**

· General Information

· Appearance:

Form:

Fluid

Colour:

According to product specification

· Odour:

Characteristic

· Odour threshold:

Not determined.

· pH-value at 20 °C:

7

· Change in condition

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

145 °C

· Flash point:

33 °C (Pensky Martens, ASTM D93)

· Flammability (solid, gaseous):

Not applicable.

· Ignition temperature:

480 °C

· Decomposition temperature:

Not determined.

· Self-igniting:

Product is not selfigniting.

· Danger of explosion:

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

Lower:

1,2 Vol %

Upper:

8,9 Vol %

· Vapour pressure at 20 °C:

6 hPa

· Density at 20 °C:

2,12 g/cm³ (DIN 51757, ASTM D 1298)

· Relative density

Not determined.

· Vapour density

Not determined.

· Evaporation rate

Not determined.

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic:

Not determined.

Kinematic:

Not determined.

· Solvent content:

Organic solvents:

12,0 %

VOC (2004/42/EC):

12,01 %

Solids content:

70,3 %

· 9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· 10.3 Possibility of hazardous reactions No dangerous reactions known.

· 10.4 Conditions to avoid No further relevant information available.

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- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- Acute toxicity
- LD/LC50 values relevant for classification:

Components	Type	Value	Species
100-42-5 styrene			
Oral	LD50	5000 mg/kg	(Rat)

- Primary irritant effect:
- Skin corrosion/irritation
Causes skin irritation.
- Serious eye damage/irritation
Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- 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 the unborn child.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure
Causes damage to the hearing organs through prolonged or repeated exposure.
- Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- Aquatic toxicity: No further relevant information available.

Type of test	Effective concentration	Method	Assessment
100-42-5 styrene			
Oral	EC50	5,1 mg/l	(Daphnia magna)
Inhalative	LC50/4 h	24 mg/l	(Rat)
	LC50/96 h	25 mg/l	(Lepomis macrochirus)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- Additional ecological information:
- General notes:
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- PBT: Not applicable.
- vPvB: Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number	UN3269
· ADR, RID, ADN, IMDG, IATA	
· 14.2 UN proper shipping name	3269 POLYESTER RESIN KIT mixture
· ADR/RID/ADN	

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· IMDG, IATA	POLYESTER RESIN KIT mixture
· 14.3 Transport hazard class(es)	
· ADR/RID/ADN	
· Class	3 (FT3) Flammable liquids.
· Label	3
· IMDG, IATA	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	
· ADR, RID, ADN, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	-
· EMS Number:	F-E, S-D
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: See
· Transport category	3
· Tunnel restriction code	E
· Remarks:	In packsize up to 450 liter exempt from ADR according ADR 2.2.3.1.5.
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: See SP340
· UN "Model Regulation":	UN 3269 POLYESTER RESIN KIT MIXTURE, 3, III

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t

· National regulations:

· Technical instructions (air):

Class	Share in %
NK	12,0

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
 - H226 Flammable liquid and vapour.
 - H315 Causes skin irritation.
 - 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 the hearing organs through prolonged or repeated exposure.
- Department issuing MSDS: Research and Development

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- **Contact: G. Lok (tel +31 0180 314777, e-mail info@polyservice.nl)**

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

- **Sources: Literature data and/or investigation reports are available through the manufacturer.**

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