

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

- **1.1 Product identifier**
- Trade name:** PERGAQUICK A3 S
- **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**
Accelerator for polymerisation / crosslinking
For industrial use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** PERGAN GmbH
Hilfsstoffe für industrielle Prozesse
Schlavenhorst 71
D-46395 Bocholt
Tel: +49 2871 9902-0
Fax: +49 2871 9902-50
- **Further information obtainable from:** Environment protection / Security of labour
Competent person:
* Sales Manager Germany: Mr. Ansgar Pappenheim, e-mail: a.pappenheim@pergan.com
* Export Sales Manager: Mr. Dr. Thomas Philipps, e-mail: dr.philipps@pergan.com
* Environment protection / : Mr. Christoph Wilting, e-mail: c.wilting@pergan.com
Security of labour
- **1.4 Emergency telephone number:** - Tel: +49 2871 9902-0

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 3	H226	Flammable liquid and vapour.
Acute Tox. 3	H331	Toxic if inhaled.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
Repr. 2	H361d	Suspected of damaging the unborn child.
STOT SE 3	H335	May cause respiratory irritation.
STOT RE 1	H372	Causes damage to the hearing organs through prolonged or repeated exposure.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.
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 GHS06 GHS08
- **Signal word** Danger
- **Hazard-determining components of labelling:** styrene
N,N-diethylaniline
- **Hazard statements**

H226 Flammable liquid and vapour.
H331 Toxic if inhaled.
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.
H304 May be fatal if swallowed and enters airways.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243 Take precautionary measures against static discharge.
P264 Wash thoroughly after handling.
P273 Avoid release to the environment.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
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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P403+P235 Store in a well-ventilated place. Keep cool.
 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


· Dangerous components:

CAS: 100-42-5 EINECS: 202-851-5 Index number: 601-026-00-0 Reg-No.: 01-2119457861-32	styrene Flam. Liq. 3, H226; Repr. 2, H361d; STOT RE 1, H372; Asp. Tox. 1, H304; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3, H412	80-90%
CAS: 91-66-7 EINECS: 202-088-8 Index number: 612-054-00-8 Reg-No.: 01-2119943758-22	N,N-diethylaniline Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT RE 2, H373; Aquatic Chronic 2, H411	5-10%

- Additional information: For the wording of the listed hazard 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. Remove breathing equipment only after contaminated clothing have been completely removed. In case of irregular breathing or respiratory arrest provide artificial respiration.
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 Take care of personal protection for the first aider.
- After inhalation: Supply fresh air or oxygen; call for doctor. In case of unconsciousness place patient stably in side position for transportation. Take affected persons into fresh air and keep quiet.
- After skin contact: Immediately wash with water and soap and rinse thoroughly. Immediately remove contaminated clothing.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: Do not induce vomiting; call for medical help 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.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture: Under certain fire conditions, traces of other toxic gases cannot be excluded.
- 5.3 Advice for firefighters
- Protective equipment: Mouth respiratory protective device. Do not inhale explosion gases or combustion gases.
- Additional information: Cool endangered receptacles with water spray. Self-protection first!


SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures: Keep away from ignition sources. Wear protective equipment. Keep unprotected persons away.




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- **6.2 Environmental precautions:** 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.
 - Soak up with absorbant material (e. g. Vermiculit) and dispose of in accordance with government regulations.
- **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.
 - In case of large spillage the environmental authority should be informed.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
 - Keep away from heat and direct sunlight.
 - Ensure good ventilation/exhaustion at the workplace.
 - Open and handle receptacle with care.
 - Prevent formation of aerosols.
 - Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.
 - Use only in well ventilated areas.
 - Before break and at the end of work hands should be thoroughly washed.
 - While using do not eat, drink or smoke.
 - Do not generate flames or sparks.
 - Keep product and emptied container away from heat and sources of ignition.
 - Take precautionary measures against static discharges.
 -  Do not smoke.
- **Information about fire - and explosion protection:**
 - Protect against electrostatic charges.
 - Keep respiratory protective device available.
 - Use explosion-proof apparatus / fittings and spark-proof tools.
 - Highly volatile, flammable constituents are released during processing.
 - Fumes can combine with air to form an explosive mixture.
 -  Wear shoes with conductive soles.
 - Formation of flammable or explosive gas/air-mixtures is possible.
 -  Avoid open flames, sparks, direct sunlight and other sources of ignition.
 - Keep ignition sources away - Do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
 - **Storage:** Pay attention to the special requirements of your local authorities for storing dangerous goods.
 - **Requirements to be met by storerooms and receptacles:**
 - Prevent any seepage into the ground.
 - Use only receptacles specifically permitted for this substance/product.
 - **Information about storage in one common storage facility:**
 - Store away from peroxide.
 - Store away from foodstuffs, drinks and feeding stuffs.
 - **Further information about storage conditions:**
 - Keep container tightly sealed.
 - Store receptacle in a well ventilated area.
 - Storage in a collecting room is required.
 - Protect from contamination.
 - Store under lock and key and out of the reach of children.
 - **Recommended storage temperature (To maintain quality):** 0 +15 °C
 - **Storage class:** 3
- **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:

100-42-5 styrene

WEL (Great Britain)	Short-term value: 1080 mg/m ³ , 250 ppm Long-term value: 430 mg/m ³ , 100 ppm
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· DNELs

100-42-5 styrene

Dermal	DNEL Longterm System	406 mg/kg bw/day (Worker)
Inhalative	DNEL Acute Local	306 mg/m ³ (Worker)
	DNEL Longterm System	85 mg/m ³ (Worker)

· PNECs

100-42-5 styrene

PNEC Marinewater sed	0.307 mg/kg sed dw
PNEC Freshwater	0.028 mg/l (AF 10)
PNEC Freshwater sed	0.614 mg/kg sed dw (-)
PNEC Soil	0.2 mg/kg soil dw
PNEC STP	5 mg/l (AF 100)
PNEC Marinewater	0.014 mg/l (AF 20)

91-66-7 N,N-diethylaniline

PNEC Marinewater sed	0.028 mg/kg sed dw (-)
PNEC Freshwater	0.033 mg/l (AF 300)
PNEC Freshwater sed	0.028 mg/kg sed dw (-)
PNEC Soil	0.007 mg/kg soil dw (-)
PNEC STP	0.98 mg/l (AF 10)
PNEC Marinewater	0.003 mg/l (AF 3000)

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

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.
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 close or long term contact with the skin.
Avoid contact with the eyes and skin.
Do not eat, drink, smoke or sniff while working.
Use skin protection cream for skin protection.
Be sure to clean skin thoroughly after work and before breaks.

· 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.
Use suitable respiratory device when it exceed exposure limit and when insufficiently ventilated.



Filter A2

· Protection of hands:

Only use chemical-protective gloves with CE-labelling of category III.



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

Protective gloves

· 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.
Butyl rubber, BR
Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
Neoprene

· 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.

· Eye protection:



Tightly sealed goggles

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· Body protection:



Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

- Form: Fluid
- Colour: Yellowish
- Odour: Characteristic
- Odour threshold: Not determined.

· pH-value: Not determined.

· Change in condition

- Melting point/freezing point: Undetermined.
- Initial boiling point and boiling range: Not applicable.

· Flash point: 33 °C

· Flammability (solid, gas): Not applicable.

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

- Lower: Not determined.
- Upper: Not determined.

· Vapour pressure: Not determined.

· Density at 20 °C: 0.91 g/cm³

- Relative density: Not determined.
- Vapour density: Not determined.
- Evaporation rate: Not determined.

· Solubility in / Miscibility with

- water: Undetermined.

· Partition coefficient: n-octanol/water: not determined

· Viscosity:

- Dynamic: Not determined.
- Kinematic: Not determined.

· 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity: No further relevant information available.

· 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 hazardous decomposition products if used and stored according to specifications.

· Additional information: Emergency procedures will vary depending on conditions. The customer should have an emergency response plane in place.

* SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity: Toxic if inhaled.

· LD/LC50 values relevant for classification:

100-42-5 styrene

Oral	LD50	5,000 mg/kg (rattus)
Dermal	LD50	>2,000 mg/kg (rattus)
Inhalative	LC50 / 4h	11.8 mg/l (rattus)

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91-66-7 N,N-diethylaniline

Oral	LD50	606 mg/kg (rattus)
Dermal	LD50	>5,000 mg/kg (rattus)
Inhalative	LC50 / 4h	1.92 mg/l (rattus)

· **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** May be fatal if swallowed and enters airways.

SECTION 12: Ecological information· **12.1 Toxicity**· **Aquatic toxicity:****100-42-5 styrene**

LC50 / 96h	4.02 mg/l (pimephales promelas)
EC50 / 48h	4.7 mg/l (daphnia magna)
IC50 / 72h	4.9 mg/l (pseudokirchneriella subcapitata)

91-66-7 N,N-diethylaniline

EC50 / 72h	5.6 mg/l (scenedesmus subspicatus)
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· **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 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.
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.

· **Waste disposal key:**

Please contact your hazardous waste disposers to assign the right EWC-(European waste catalog)-number.

· **Uncleaned packaging:**· **Recommendation:**

This material and its container must be disposed of as hazardous waste.

SECTION 14: Transport information· **14.1 UN-Number**· **ADR**

UN1992




· **IMDG, IATA**

UN2929

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<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG, IATA 	<p>1992 FLAMMABLE LIQUID, TOXIC, N.O.S. contains (STYRENE MONOMER, STABILIZED, N,N-DIETHYLANILINE)</p> <p>TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. (contains (STYRENE MONOMER, STABILIZED, N,N-DIETHYLANILINE)</p>
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR  <ul style="list-style-type: none"> · Class · Label 	<p>3 (FT1) Flammable liquids. 3+6.1</p>
<ul style="list-style-type: none"> · IMDG  <ul style="list-style-type: none"> · Class · Label 	<p>6.1 Toxic substances. 6.1/3</p>
<ul style="list-style-type: none"> · IATA  <ul style="list-style-type: none"> · Class · Label 	<p>6.1 Toxic substances. 6.1 (3)</p>
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	<p>II</p>
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: 	<p>No</p>
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · Stowage Category · Stowage Code 	<p>Warning: Flammable liquids. 36 B SW2 Clear of living quarters.</p>
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	<p>Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code · RID / GGVSEB: 	<p>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml 2 D/E like ADR</p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>100 ml Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml</p>

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
 - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
 - National regulations:
 - Other regulations, limitations and prohibitive regulations
 - Please note: Take care of the respective local regulations.

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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.
 - H301 Toxic if swallowed.
 - H304 May be fatal if swallowed and enters airways.
 - H311 Toxic in contact with skin.
 - H315 Causes skin irritation.
 - H319 Causes serious eye irritation.
 - H331 Toxic if inhaled.
 - 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.
 - H373 May cause damage to the hearing organs through prolonged or repeated exposure.
 - H411 Toxic to aquatic life with long lasting effects.
 - H412 Harmful to aquatic life with long lasting effects.

- **Department issuing SDS:** Environment protection / Security of labour
- **Contact:** Tel: +49 2871 9902-0
E-mail: mail@pergan.com
- **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)
 - 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 – Category 3
 - Acute Tox. 3: Acute toxicity – Category 3
 - Acute Tox. 4: Acute toxicity – Category 4
 - Skin Irrit. 2: Skin corrosion/irritation – Category 2
 - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 - Repr. 2: Reproductive toxicity – Category 2
 - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 - STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
 - STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
 - Asp. Tox. 1: Aspiration hazard – Category 1
 - Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
 - Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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