

POLYESTERLIQUIDE**1. Identification of the substance/preparation and the company**

- 1.1 Identification of the substance or preparation:**
Productname: POLYESTERLIQUIDE
- 1.2 Use of the substance or the preparation:**
Adhesive
- 1.3 Company/undertaking identification:**
SODAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
Tel. : +32 14 42 42 31
Fax : +32 14 44 39 71
- 1.4 Telephone number for emergency:**
+32 14 58 45 45
Brandweerinformatiecentrum voor gevaarlijke stoffen (B.I.G.)
Technische Schoolstraat 43 A, B-2440 Geel

2. Composition/information on ingredients

Hazardous ingredients	CAS No. EINECS No.	Conc. in %	Hazard symbol	Risks (R-phrases)
styrene	100-42-5 202-851-5	> 20	Xn	10-20-36/38 (1)

(1) For R-phrases in full: see heading 16

3. Hazards identification

- Flammable
- Harmful by inhalation
- Irritating to eyes and skin

4. First aid measures

- 4.1 Eye contact:**
- Rinse immediately with plenty of water
- Seek medical advice
- 4.2 Skin contact:**
- Rinse immediately with plenty of water
- If irritation persists: seek medical advice
- 4.3 After inhalation:**
- Remove the victim into fresh air
- Seek medical advice
- 4.4 After ingestion:**
- Never give water to an unconscious person
- Do not induce vomiting
- Seek medical advice

POLYESTERLIQUIDE

5. Fire-fighting measures

5.1 Suitable extinguishing media:

- Water spray
- Polyvalent foam
- Alcohol-resistant foam
- BC powder
- Carbon dioxide

5.2 Unsuitable extinguishing media:

- Solid water jet ineffective as extinguishing medium

5.3 Special exposure hazards:

- On burning: release of carbon monoxide and carbon dioxide
- May build up electrostatic charges: risk of ignition
- Gas/vapour flammable with air within explosion limits

5.4 Instructions:

- Cool drums with water spray
- Take account of toxic firefighting water
- Use firefighting water moderately and contain it
- Do not move the load if exposed to heat

5.5 Special protective equipment for firefighters:

- Heat/fire exposure: compressed air/oxygen apparatus

6. Accidental release measures

6.1 Personal protection/precautions: see heading 8.2/13

6.2 Environmental precautions:

- Use appropriate containment to avoid environmental contamination

6.3 Clean-up:

- Take up liquid spill into absorbent material e.g.: sand/earth
- Take collected spill to competent authority
- Wash clothing and equipment after handling

7. Handling and storage

7.1 Handling:

- Observe normal hygiene standards
- In case of insufficient ventilation: keep naked flames/sparks away
- Do not discharge the waste into the drain
- Handle and open the container with care

7.2 Storage:

- Keep container tightly closed
- Store in a cool area

- Keep away from: heat sources, ignition sources, combustible materials, oxidizing agents, acids, bases, halogens

Storage temperature	:	Roomtemperature
Quantity limits	:	N.D. kg
Storage life	:	365 days
Materials for packaging	:	
- suitable	:	tin

7.3 Specific uses:

- See information supplied by the manufacturer

8. Exposure controls/Personal protection

8.1 Exposure limit values:

STYRENE:

TLV-TWA	: -	mg/m ³	20	ppm
TLV-STEL	: -	mg/m ³	40	ppm
TLV-Ceiling	: -	mg/m ³	-	ppm
MEL-LTEL	: 430	mg/m ³	100	ppm
MEL-STEL	: 1080	mg/m ³	250	ppm
MAK	: 86	mg/m ³	20	ppm
TRK	: -	mg/m ³	-	ppm
MAC-TGG 8 h	: 107	mg/m ³		
MAC-TGG 15 min.	: -	mg/m ³		
MAC-Ceiling	: -	mg/m ³		
VME-8 h	: 215	mg/m ³	50	ppm
VLE-15 min.	: -	mg/m ³	-	ppm
GWBB-8 h	: 216	mg/m ³	50	ppm
GWK-15 min.	: 432	mg/m ³	100	ppm
Momentary value	: -	mg/m ³	-	ppm
EC	: -	mg/m ³	-	ppm
EC-STEL	: -	mg/m ³	-	ppm

8.2 Exposure controls:

8.2.1 Occupational exposure controls:

- Use only in well ventilated area

8.2.2 Environmental exposure controls: see heading 13

8.3 Personal protection:

8.3.1 respiratory protection:

- High gas/vapour concentration: gas mask with filter type A

8.3.2 hand protection:

- Chemically resistant gloves

8.3.3 eye protection:

- Safety glasses

8.3.4 skin protection:

- Suitable protective clothing

POLYESTERLIQUIDE

9. Physical and chemical properties

9.1 General information:

Appearance (at 20°C) : Liquid
Odour : Solvent
Colour : Light brown

9.2 Important health, safety and environmental information:

pH value : N.D.
Boiling point/boiling range : > 145 °C
Flashpoint : 34 °C
Explosion limits : 1.1 - 8.0 Vol%
Vapour pressure (at 20°C) : 6.5 hPa
Vapour pressure (at 50°C) : N.D. hPa
Relative density (at 20°C) : 1.1
Water solubility : Insoluble
Soluble in : No data available
Relative vapour density : N.D.
Viscosity (at 23°C) : 0.9 - 1.2 Pa.s
Partition coefficient n-octanol/water : N.D.
Evaporation rate
ratio to butyl acetate : N.D.
ratio to ether : N.D.

9.3 Other information:

Melting point/melting range : N.D. °C
Auto-ignition point : > 490 °C
Saturation concentration : N.D. g/m³

10. Stability and reactivity

10.1 Conditions to avoid/reactivity:

- Unstable on exposure to heat

10.2 Materials to avoid:

- Keep away from: heat sources, ignition sources, combustible materials, oxidizing agents, acids, bases, halogens

10.3 Hazardous decomposition products:

- Polymerizes on exposure to temperature rise: (increased) risk of fire/explosion
- On burning: release of carbon monoxide and carbon dioxide
- Reacts with (strong) oxidizers: (increased) risk of fire/explosion
- Reacts with (some) acids: (increased) risk of fire/explosion

11. Toxicological information

11.1 Acute toxicity:

LD50 oral rat	: > 2000	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LC50 inhalation rat	: N.D.	mg/l/4 h
LC50 inhalation rat	: N.D.	ppm/4 h

11.2 Chronic toxicity:

STYRENE:

EC carc. cat.	: not listed
EC muta. cat.	: not listed
EC repr. cat.	: not listed
Carcinogenicity (TLV)	: A4
Carcinogenicity (MAC)	: not listed
Carcinogenicity (VME)	: not listed
Carcinogenicity (GWBB)	: not listed
Carcinogenicity (MAK)	: category 5
Mutagenicity (MAK)	: not listed
Teratogenicity (MAK)	: Group C
IARC classification	: 2B

11.3 Routes of exposure: ingestion, inhalation, eye and skin
Warning! Substance is absorbed through the skin

11.4 Acute effects/symptoms:

AFTER INHALATION:

- EXPOSURE TO HIGH CONCENTRATIONS:
- Irritation of the respiratory tract
 - Irritation of the nasal mucous membranes
 - CNS depression
 - Feeling of weakness
 - Nausea
 - Headache
 - Dizziness
 - Mental confusion
 - Coordination disorders
 - Myasthenia
 - Impaired concentration
 - Disturbed motor response
 - Disturbances of consciousness

AFTER INGESTION:

- AFTER ABSORPTION OF HIGH QUANTITIES:
- CNS depression
 - Symptoms similar to those listed under inhalation

AFTER SKIN CONTACT:

- Tingling/irritation of the skin

AFTER EYE CONTACT:

- Irritation of the eye tissue

11.5 Chronic effects:

- Contains substance with uncertain carcinogenic properties (styrene)
- Contains substance with uncertain teratogenic properties (styrene)
- May have an effect on fertility
- No cumulative effect
- Feeling of weakness
- Dry skin
- Itching
- Skin rash/inflammation
- Change in the haemogramme/blood composition
- Loss of appetite
- Enlargement/affection of the liver

12. Ecological information

12.1 Ecotoxicity:

STYRENE:

- LC50 (96 h) : 25.1 mg/l (LEPOMIS MACROCHIRUS)
- EC50 (48 h) : 23 mg/l (DAPHNIA MAGNA)

12.2 Mobility:

- Volatile organic compounds (VOC): 33 %
- Insoluble in water

For other physicochemical properties see section 9

12.3 Persistence and degradability:

- Biodegradation BOD₅ : N.D. % ThOD
- water : No data available
- soil : T $\frac{1}{2}$ N.D. days

12.4 Bioaccumulative potential:

- log P_{ow} : N.D.
- BCF : N.D.

12.5 Other adverse effects:

- WGK : 2 (classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)
- Effect on the ozone layer : Not dangerous for the ozone layer (1999/45/EC)
- Greenhouse effect : No data available
- Effect on waste water purification : No data available

13. Disposal considerations

13.1 Provisions relating to waste:

- Waste material code (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 08 04 09* (waste adhesives and sealants containing organic solvents or other dangerous substances)
- Hazardous waste (91/689/EEC)

13.2 Disposal methods:

- Incinerate under surveillance
- Do not discharge into drains or the environment

13.3 Packaging:

- Waste material code packaging (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 10* (packaging containing residues of or contaminated by dangerous substances)

14. Transport information

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14.1 Classification of the substance in compliance with UN Recommendations

UN number : 3269
 CLASS : 3
 SUB RISKS : -
 PACKING : III
 PROPER SHIPPING NAME :
 UN 3269, Polyester resin kit

14.2 ADR (transport by road)

CLASS : 3
 PACKING : III
 DANGER LABEL TANKS : -
 DANGER LABEL PACKAGES : 3

14.3 RID (transport by rail)

CLASS : 3
 PACKING : III
 DANGER LABEL TANKS : -
 DANGER LABEL PACKAGES : 3

14.4 ADNR (Inland navigation)

CLASS : 3
 PACKING : III
 DANGER LABEL TANKS : -
 DANGER LABEL PACKAGES : 3

14.5 IMDG (Maritime transport)

CLASS : 3
 SUB RISKS : -
 PACKING : III
 MFIAG : -
 EMS : F-E, S-D
 MARINE POLLUTANT : -

14.6 ICAO (Air freight)

CLASS : 3
 SUB RISKS : -
 PACKING : III
 PACKING INSTRUCTIONS PASSENGER AIRCRAFT : 312/Y312
 PACKING INSTRUCTIONS CARGO AIRCRAFT : 312

14.7 Special precautions in connection with transport : None

14.8 Limited quantities (LQ) :

When substances and their packaging meet the conditions established by ADR/RID/ADNR in chapter 3.4, **only** the following prescriptions shall be complied with:

each package shall display a diamond-shaped figure with the following inscription:

- 'UN 3269'

or, in the case of different goods with different identification numbers within a single package:

- the letters 'LQ'

15. Regulatory information

Labelling in accordance with directives 67/548/EEC and 1999/45/EC



Harmful

Contains : styrene

R10 : Flammable
R20 : Harmful by inhalation
R36/38 : Irritating to eyes and skin

S(02) : (Keep out of reach of children)
S23 : Do not breathe vapour

16. Other information

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

N.A. = NOT APPLICABLE
N.D. = NOT DETERMINED
***** = INTERNAL CLASSIFICATION

Exposure limits:

TLV : Threshold Limit Value - ACGIH USA
OES : Occupational Exposure Standards - United Kingdom
MEL : Maximum Exposure Limits - United Kingdom
MAK : Maximale Arbeitsplatzkonzentrationen - Germany
TRK : Technische Richtkonzentrationen - Germany
MAC : Maximale aanvaarde concentratie - the Netherlands
VME : Valeurs limites de Moyenne d'Exposition - France
VLE : Valeurs limites d'Exposition à court terme - France
GWBB : Grenswaarde beroepsmatige blootstelling - Belgium
GWK : Grenswaarde kortstondige blootstelling - Belgium
EC : Indicative occupational exposure limit values - directive 2000/39/EC

I : Inhalable fraction = **T** : Total dust = **E** : Einatembarer Aerosolanteil
R : Respirable fraction = **A** : Alveolengängiger Aerosolanteil/Alveolar dust
C : Ceiling limit

a: aerosol		r: rook/Rauch	(fume)
d: damp	(vapour)	st: stof/Staub	(dust)
du: dust		ve: vezel	(fibre)
fa: Faser	(fibre)	va: vapour	
fi: fibre		om: oil mist	
fu: fume		on: olienevel/Ölnebel	(oil mist)
p: poussière	(dust)	part: particles	

Chronic toxicity:

K: List of the carcinogenic substances and processes - The Netherlands 2000

Full text of any R-phrases referred to under heading 2:

R10 : Flammable
R20 : Harmful by inhalation
R36/38 : Irritating to eyes and skin