

Printing date 16.09.2011 Version number 1 Revision: 16.09.2011

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

• **Date of issue:** 13.12.2010

· Product identifier

· Trade name: SELVOLTM (Celvol®) Polyvinyl alcohol, homopolymer

 \cdot Synonym(s):

Grade: 103, E 103, 107, E 107, 125, 125NS, 125S, 165, 165SF, 305, E 305, 310, E 310, 325, E 325, 325 LA,

E 325 LA, 350, 825 • CAS Number: 9002-89-5

· EINECS/ELINCS/NLP Number:

Polymer

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

· Application of the substance / the preparation:

Chemical intermediate (including monomers), Auxiliary for leather, Auxiliary for textil, packaging, Surfactant, Adhesives industry, Food industry

· Details of the supplier of the safety data sheet

· Manufacturer / Supplier:

Sekisui Specialty Chemicals Europe S.L. Carretera Nacional 340 Km. 1157 Apartado 1388 Tel. +34 (9775) 49899 Fax +34 (9775) 44982

43080 Tarragona, SPAIN

- · E-mail address of the competent person responsible for the Safety Data Sheet: MSDS@sekisui-sc.com
- · Informing department: Sales / Technics
- · Emergency telephone number: +1 703 527 3887

2 Hazards identification

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

The substance is not classified according to the CLP regulation.

- · Classification according to Directive 67/548/EEC or Directive 1999/45/EC Void
- · Classification system:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- · Label elements
- · Labelling according to Regulation (EC) No 1272/2008 Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Designation:

9002-89-5 Ethenol, homopolymer 92 -95%

- · Identification number(s): void, polymer
- · EC number: Polymer

(Contd. on page 2)



Printing date 16.09.2011 Version number 1 Revision: 16.09.2011

Trade name: SELVOLTM (Celvol®) Polyvinyl alcohol, homopolymer

CAS: 67-56-1
EINECS: 200-659-6
Index number: 603-001-00-X

Flam. Liq. 2, H225
Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331

STOT SE 1, H370

Contd. of page 1)

∠0.9%

∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9%
∠0.9

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

4 First aid measures

- · Description of first aid measures
- · General information: Remove contaminated clothing.
- · After inhalation: Supply fresh air; consult doctor in case of symptoms.
- · After skin contact:

Rinse with plenty of water.

If skin irritation continues, consult a doctor.

· After eye contact:

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

· After swallowing:

Do not induce vomiting!

Rinse out mouth and then drink plenty of water.

In case of persistent symptoms consult doctor.

- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Firefighting measures

- · Extinguishing media
- · Suitable extinguishing agents

Carbon dioxide (CO₂), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.

- · For safety reasons unsuitable extinguishing agents Water with a full water jet.
- · Special hazards arising from the substance or mixture

Can be released in case of fire:

Carbon monoxide (CO) and Carbon dioxide (CO₂)

Formation of toxic gases is possible during heating or in case of fire.

- · Advice for firefighters
- · Protective equipment:

Wear full protective suit.

Wear self-contained breathing apparatus.

· Additional information

Cool endangered containers with water spray jet.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Wear protective clothing and keep away unprotected persons.

(Contd. on page 3)



Printing date 16.09.2011 Version number 1 Revision: 16.09.2011

Trade name: SELVOLTM (Celvol®) Polyvinyl alcohol, homopolymer

(Contd. of page 2)

Avoid contact with skin and eyes.

Do not breathe dust.

Product forms slippery surface when combined with water.

· Environmental precautions:

Prevent from spreading (e.g. by damming-in or oil barriers).

Do not allow to enter drainage system, surface or ground water.

· Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Collect mechanically.

Prevent formation of dust.

Send for recovery or disposal in suitable containers.

Dispose of the material collected according to regulations.

· Reference to other sections

See Section 8 for information on personal protection equipment.

7 Handling and storage

- · Handling
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

Avoid contact with skin and eyes.

Make sure that all applicable workplace limits are observed.

Do not breathe dust.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect from heat.

- · Conditions for safe storage, including any incompatibilities
- · Storage
- · Requirements to be met by storerooms and containers:

Observe all local and national regulations for storage of water polluting products.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizers.

· Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Store container in a well ventilated position.

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with critical values that require monitoring at the workplace:

Observe all workplace limits for dust.

- · Additional information: The lists that were valid during the compilation were used as basis.
- · Exposure controls
- · Personal protective equipment
- · General protective and hygienic measures

Keep away from foodstuffs, beverages and food.

Wash hands during breaks and at the end of the work.

(Contd. on page 4)



Printing date 16.09.2011 Version number 1 Revision: 16.09.2011

Trade name: SELVOLTM (Celvol®) Polyvinyl alcohol, homopolymer

(Contd. of page 3)

Use skin protection cream for preventive skin protection.

Do not eat, drink or smoke while working.

· Breathing equipment:

If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.

· Protection of hands:

Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.

Check the permeability prior to each renewed use of the glove.

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.

Sensibilization by the components in the glove materials is possible.

· Material of gloves

Butyl rubber - BR

Natural rubber - NR

· Penetration time of glove material

Protective gloves should be replaced at first signs of wear.

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

· Eye protection: Safety glasses

· Body protection: Protective clothing should be selected specifically for the working place.

9 Physical and chemical properties

· Information on t	basic physical	l and cl	hemical	properties
· General Informa	ıtion			

· Appearance:

Form: solid
Colour: off white

Smell: characteristic

• pH-value (40 g/l) at 20 °C: 5 - 7

· Change in condition

Melting point/Melting range: 230 - 240°C

not determined

· Flash point: not applicable

· Self-inflammability: Product is not selfigniting.

· Danger of explosion: Product is not explosive.

· Density: not determined

• **Bulk density at 20 °C:** 610 - 670 kg/m³

· Solubility in / Miscibility with

Water: soluble in hot water

· Other information Further informations please refer to technical data sheet.

GB



Printing date 16.09.2011 Version number 1 Revision: 16.09.2011

Trade name: SELVOLTM (Celvol®) Polyvinyl alcohol, homopolymer

(Contd. of page 4)

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Avoid impact, friction, heat, sparks, electrostatic charges.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: Strong oxidizing agents
- · Hazardous decomposition products: Carbon monoxide (CO) and Carbon dioxide (CO₂)

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

Oral	LD50	> 5000 mg/kg (rat)
Inhalative	LC50/1 h	> 24 mg/l (rat)

- · Primary irritant effect:
- · on the skin: Dust particles may mechanically irritate the skin.
- · on the eye: Dust particles may mechanically irritate the eye.
- · Other information (about experimental toxicology): Ames test: negative
- · Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information

· Toxicity

· Aquatic tox	icity:
EC50	50 mg/l (bacteriums) (DIN 38412 T.8)
EC50/48 h	8.3 mg/l (daphnia)
LC50/96 h	> 5000 mg/l (danio rerio)
	40 mg/l (Fathead minnow (Pimephales promelas))

- · Persistence and degradability No further relevant information available.
- · Other information:

Biodegradability 90 %

OECD 302 B (Zahn-Wellens Test)

- · Behaviour in environmental systems:
- · Bioaccumulative potential BCF: <
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · Chemical Oxygen Demand (COD-value): 17000 mgO₂/g
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

(Contd. on page 6)



Printing date 16.09.2011 Version number 1 Revision: 16.09.2011

Trade name: SELVOLTM (Celvol®) Polyvinyl alcohol, homopolymer

(Contd. of page 5)

· Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- Recommendation Disposal must be made according to official regulations.
- · Waste disposal key number: According to local/national regulations.
- · European waste catalogue:

Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

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

UN-Number	
ADR, ADN, IMDG, IATA	Void
UN proper shipping name ADR, ADN, IMDG, IATA	Void
Transport hazard class(es)	
ADR, ADN, IMDG, IATA	
Class	Void
Packing group	
ADR, IMDG, IATA	Void
Special precautions for user	Not applicable.
Transport in bulk according to Annex 1	II of
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	-

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Labelling according to Regulation (EC) No 1272/2008 Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · National regulations
- · Decree to be applied in case of technical fault: -
- · Water hazard class:
- Water hazard class 1 (Classification according to German VwVws, Annex 3): slightly hazardous for water
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

CD



Printing date 16.09.2011 Version number 1 Revision: 16.09.2011

Trade name: SELVOLTM (Celvol®) Polyvinyl alcohol, homopolymer

(Contd. of page 6)

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

The (se) R-phrase (s) are those of the ingredient (s) and do(es) NOT represent the classification of the preparation.

H225 Highly flammable liquid and vapour.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

H370 Causes damage to organs.

R11 Highly flammable.

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

· Department issuing MSDS:

C.S.B. GmbH Phone: +49 - 2151 - 652086-0 Parkstraße 29 Fax: +49 - 2151 - 652086-9

D-47829 Krefeld

Germany

· 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)

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

- GB