

Printing date 26.10.2015 Version number 2 Revision: 26.10.2015

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

· Date of compilation: 16.12.2014

· 1.1 Product identifier

· Trade name: SELVOLTM Polyvinyl alcohol, low degree hydrolysis

Grades: E 603, E 605, E 607, E 705H, E 707

• CAS Number: 25213-24-5

· EINECS/ELINCS/NLP Number:

Polymer

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

No further relevant information available.

· Application of the substance / the preparation:

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

· 1.3 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 / Technique
- 1.4 Emergency telephone number: +1 703 527 3887

SECTION 2: Hazards identification

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

The substance is not classified as hazardous according to the CLP regulation.

- · Classification according to Directive 67/548/EEC or Directive 1999/45/EC Void
- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008 Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Additional information:

Safety data sheet available on request.

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

SECTION 3: Composition/information on ingredients

- · 3.1 Chemical characterisation: Substances
- · CAS No. Designation:

25213-24-5 Vinyl acetate-vinyl alcohol copolymer

- · Identification number(s):
- · EC number: Polymer

(Contd. on page 2)



Printing date 26.10.2015 Version number 2 Revision: 26.10.2015

 $\textit{Trade name: SELVOL} \textbf{^{TM}} \textit{ Polyvinyl alcohol, low degree hydrolysis}$

Grades: E 603, E 605, E 607, E 705H, E 707

(Contd. of page 1)

· Dangerous components:

CAS: 67-56-1 Methanol

😡 T R23/24/25-39/23/24/25; 🐚 F R11

< 3%

EINECS: 200-659-6 Index number: 603-001-00-X

♠ Flam. Liq. 2, H225; ♠ Acute Tox. 3, H301; Acute Tox. 3,

Reg.nr.: 01-2119433307-44-XXXX H311; Acute Tox. 3, H331; STOT SE 1, H370

· 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: Take off 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.

Remove contact lenses, if present and easy to do.

· After swallowing:

Do NOT induce vomiting.

Rinse out mouth and then drink plenty of water.

In case of persistent symptoms 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 symptomatic treatment

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents

Carbon dioxide (CO_2), 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.
- · 5.2 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.

- · 5.3 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.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Wear protective clothing and keep away unprotected persons.

Avoid contact with skin and eyes.

(Contd. on page 3)



Printing date 26.10.2015 Version number 2 Revision: 26.10.2015

Trade name: SELVOLTM Polyvinyl alcohol, low degree hydrolysis

Grades: E 603, E 605, E 607, E 705H, E 707

(Contd. of page 2)

Do not breathe vapour.

Product forms slippery surface when combined with water.

· 6.2 Environmental precautions:

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

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

 \cdot 6.3 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.

· 6.4 Reference to other sections

See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with skin and eyes.

Prevent formation of dust.

Any deposit of dust which cannot be avoided must be removed regularly.

Do not breathe dust.

Make sure that all applicable workplace limits are observed.

 $\cdot \textit{Information about protection against explosions and fires:} \\$

Dust can combine with air to form an explosive mixture.

Keep ignition sources away - Do not smoke.

Protect from heat.

Protect against electrostatic charges.

Do not spray on flames or red-hot objects.

- · 7.2 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:

Store container in a well ventilated position.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

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

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

(Contd. on page 4)



Printing date 26.10.2015 Version number 2 Revision: 26.10.2015

Trade name: SELVOLTM Polyvinyl alcohol, low degree hydrolysis Grades: E 603, E 605, E 607, E 705H, E 707

(Contd. of page 3)

· 8.1 Control parameters

· Components with critical	omponents with critical values that require monitoring at the workplace:	
67-56-1 Methanol		
WEL (Great Britain)	Short-term value: 333 mg/m³, 250 ppm Long-term value: 266 mg/m³, 200 ppm Sk	
IOELV (European Union)	Long-term value: 260 mg/m³, 200 ppm Skin	
DNELs	· · · · · · · · · · · · · · · · · · ·	

\cdot DNELs		
67-56-1 M	ethanol	
Dermal	DNEL acute / short-term exposure - systemic effect	8 mg/kg bw/d (general population)
		40 mg/kg bw/d (worker)
	DNEL long-term exposure - systemic effects	8 mg/kg bw/d (general population)
		40 mg/kg bw/d (worker)
Inhalative	DNEL acute / short-term exposure - systemic effect	260 mg/m³ (worker)
	DNEL long-term exposure - local effects	260 mg/m³ (worker)
	DNEL long-term exposure - systemic effects	260 mg/m³ (worker)

· PNECs

PNEC | 20.8 mg/l (aqua (freshwater)) (Assessment factor 10) | 1540 mg/l (aqua (intermittent releases)) (Assessment factor 10) | 2.08 mg/l (aqua (marine water)) (Assessment factor 100) | 77 mg/kg (sediment (freshwater)) | 7.7 mg/kg (sediment (marine water)) | 3.18 mg/kg (soil) | 100 mg/l (STP (sewage treatment plant)) (Assessment factor 10)

- · Additional information: The lists that were valid during the compilation were used as basis.
- · 8.2 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.

Use skin protection cream for preventive skin protection.

Do not eat, drink or smoke while working.

· Breathing equipment:

Use breathing protection in case of dust formation.

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.

Sensibilisation by the components in the glove materials is possible.

(Contd. on page 5)



Printing date 26.10.2015 Version number 2 Revision: 26.10.2015

Trade name: SELVOLTM Polyvinyl alcohol, low degree hydrolysis

Grades: E 603, E 605, E 607, E 705H, E 707

(Contd. of page 4)

· 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: Body protection must be chosen depending on activity and possible exposure.
- Limitation and supervision of exposure into the environment

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

9.1 Information on basic physical a	und chemical properties	
General Information	• •	
Appearance:		
Form:	solid	
Colour:	off white	
Smell:	characteristic	
Odour threshold:	not determined	
pH-value (40 g/l) at 20 °C:	4.5 - 6.5	
Change in condition		
Melting point/Melting range:	230 - 240 °C	
Boiling point/Boiling range:	not determined	
Flash point:	not applicable	
Inflammability (solid, gaseous)	not determined	
Ignition temperature:	not determined	
Decomposition temperature:	not determined	
Self-inflammability:	Product is not selfigniting.	
Danger of explosion:	Product is not explosive.	
Critical values for explosion:		
Lower:	not determined	
Upper:	not determined	
Oxidising properties	not classified as oxidising	
Vapor pressure:	not applicable	
Density:	not determined	
Bulk density at 20 °C:	610 - 670 kg/m³	
Relative density	not determined	
Vapour density (AIR = 1):	not applicable	
Evaporation rate	not applicable	
Solubility in / Miscibility with		
Water:	soluble in hot water	

(Contd. on page 6)



Printing date 26.10.2015 Version number 2 Revision: 26.10.2015

Trade name: SELVOLTM Polyvinyl alcohol, low degree hydrolysis

Grades: E 603, E 605, E 607, E 705H, E 707

(Contd. of page 5)

Viscosity:dynamic:kinematic:not applicable

• 9.2 Other information Further informations please refer to technical data sheet.

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.

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

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

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity

· LD/LC50	· LD/LC50 values that are relevant for classification:	
67-56-1 M	ethanol	
Oral	LD50	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)
Inhalative	LC50/4 h	6.4 mg/l (rat)

- · Primary irritant effect:
- · Skin corrosion/irritation Dust particles may mechanically irritate the skin.
- · Serious eye damage/irritation Dust particles may mechanically irritate the eye.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Repeated dose toxicity According to information currently no known toxic effects
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- $\cdot \textit{Carcinogenicity Based on available data, the classification criteria are not met.} \\$
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · mutagenicity Ames test: negative
- · 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 tox	cicity:
67-56-1 Me	ethanol et a company of the company
EC50/48 h	24500 mg/l (daphnia)
LC50/96 h	15400 mg/l (bluegill (lepomis macrochirus))

(Contd. on page 7)



Printing date 26.10.2015 Version number 2 Revision: 26.10.2015

Trade name: SELVOLTM Polyvinyl alcohol, low degree hydrolysis Grades: E 603, E 605, E 607, E 705H, E 707

(Contd. of page 6)

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

Biodegradability 90 %

OECD 302 B (Zahn-Wellens test)

- · 12.3 Bioaccumulative potential BCF: < 10
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · Chemical Oxygen Demand (COD-value): 17000 mg O₂/g
- · Biochemical Oxygen Demand (BOD5-value): not determined
- · General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water
- · 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 Disposal must be made according to official 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.

14.1 UN-Number	
ADR, IMDG, IATA	Void
14.2 UN proper shipping name	
· ADR, IMDG, IATA	Void
· 14.3 Transport hazard class(es)	
· ADR, IMDG, IATA	
· Class	Void
· 14.4 Packing group	
· ADR, IMDG, IATA	Void
14.5 Environmental hazards:	
· Marine pollutant:	NO
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Anne	ex II of
Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN ''Model Regulation'':	-

- GB



Printing date 26.10.2015 Version number 2 Revision: 26.10.2015

Trade name: SELVOLTM Polyvinyl alcohol, low degree hydrolysis

Grades: E 603, E 605, E 607, E 705H, E 707

(Contd. of page 7)

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Seveso category void
- · National regulations
- · Decree to be applied in case of technical fault: Directive 2012/18/EU does not apply.
- · Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water
- · Other regulations, limitations and prohibitive regulations
- · Substances of very high concern (SVHC) according to REACH, Article 57

The substance is not a SVHC and is not included in the Candidate List.

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

SECTION 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.

· Reasons for changes:

The Material Safety Data Sheet has been revised. Changes in the respective chapters are characterized in the left side edge by *.

· Relevant phrases

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 Düsseldorfer Str. 113 Fax: +49 - 2151 - 652086-9

47809 Krefeld / Germany

· 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 SVHC: Substances of Very High Concern

(Contd. on page 9)



Printing date 26.10.2015 Version number 2 Revision: 26.10.2015

 $\textit{Trade name: SELVOL}^{\text{\tiny TM}} \ \textit{Polyvinyl alcohol, low degree hydrolysis}$

Grades: E 603, E 605, E 607, E 705H, E 707

(Contd. of page 8)

vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids, Hazard Category 2 Acute Tox. 3: Acute toxicity, Hazard Category 3

STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1

- · Sources: These data are based on information submitted by pre-suppliers.
- · * Data compared to the previous version altered.

GB ·