Safety data sheet
according to regulation (EG) Nr. 1907/2006

Product name	Celvol E / Celvol SP, PVOH, copolymer		EU/EN
MSDS number	85855	**Revision Date**	Jun.25.2009
Revision Number	1	**Issuing date**	Jun.29.2009

1. Identification of the substance/preparation and the company/undertaking

Product name

Celvol E / Celvol SP
Polyvinyl alcohol, copolymer

Manufacturer, importer, supplier

Sekisui Specialty Chemicals Europe S.L.
Crta. N-340, Km.1157
Apartado 1388
43080 Tarragona, SPAIN

For information, telephone +1-972-443-8901
www.sekisui-sc.com

Emergency telephone number
For Chemical Emergency: Spill Leak Fire Exposure or Accident
Call CHEMTREC Day or Night
INTERNATIONAL, CALL +1 703-527-3887 (collect calls accepted)

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

2. Hazards identification

Statements of hazard

The product does not require a hazard warning label in accordance with EC Directives.

Dust from this product can form an explosive organic dust cloud.
In closed containers, due to development of heat, vapours from Methanol and Methyl acetate could collect in the empty space of the container, therefore keep closed containers away from ignition sources and from open fires

3. Composition/information on ingredients

Chemical characterization

Polyvinyl alcohol Vinyl polymer

Components	CAS-No	EC-No.	Classification	Percent %

Methanol	67-56-1	200-659-6	F;R11 T;R23/24/25-39/23/24/25	< 3
Acetic acid ethenyl ester, polymer with ethenol	25213-24-5	-	None	93 - 95

Remarks

The following specific grades of Celvol are covered by this MSDS:

Celvol E 04/88; Celvol E 04/88E; Celvol E 04/88K; Celvol E 04/88LA;Celvol E 04/88S; Celvol E 04/88W; Celvol E 05/88; Celvol E 05/88LA; Celvol E 05/88S; Celvol E 08/88; Celvol E 08/88S; Celvol E 13/88; Celvol E 20/88; Celvol E 22/92; Celvol E 23/88; Celvol E 23/88K; Celvol E 25/88; Celvol E 26/88; Celvol E 30/92; Celvol E 30/92K; Celvol E 32/88; Celvol E 47/88;
Celvol SP 25/140; Celvol SP 05/140; Celvol SP 05/280;Celvol SP CY; Celvol SP M 05/140; Celvol SP M 05/140S; Celvol SP M 05/190; Celvol SP M 05/190K; Celvol SP M 05/290; Celvol SP M 13/140; Celvol SP M 15/200; Celvol SP M 16/190; Celvol SP V 03/140; Celvol SP V 03/180; Celvol SP V 03/240; Celvol SP V 03/300; Celvol SP W 25/100; Celvol SP W 25/140; Celvol SP W 25/190; Celvol SP W 40/140; Celvol SP W40/140S; Celvol SP W 40/140SK; Celvol SP W 45/200; Celvol SP W 45/450

4. First aid measures

General Information

Wash contaminated clothing before re-use.

Inhalation

Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Skin

Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a physician.

Eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Ingestion

If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Call a physician immediately.

Notes to physician

Treatment

Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media
alcohol-resistant foam. carbon dioxide (CO2). Dry chemical.

Extinguishing media which must not be used for safety reasons
Do not use a solid water stream as it may scatter and spread fire.

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases
Under conditions giving incomplete combustion, hazardous gases produced may consist of
carbon monoxide
carbon dioxide (CO2)
Combustion gases of organic materials must in principle be graded as inhalation poisons

Special protective equipment for fire-fighters
flame retardant protective clothing. self-contained breathing apparatus (EN 133).

Other Information
Cool containers / tanks with water spray. Thoroughly decontaminate bunker gear and other fire-fighting equipment before re-use.

6. Accidental release measures

Personal precautions
Avoid contact with the skin and the eyes. Do not breathe dust. Forms slippery surfaces with water.

Environmental precautions
Prevent further leakage or spillage. Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning Up
Shovel or sweep up. Keep in suitable, closed containers for disposal. Dispose of in accordance with local regulations. Avoid dust formation.

7. Handling and storage

Handling

Advice on safe handling
Use adequate ventilation. Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid dust formation.

Protection - fire and explosion:
The powder can explode if mixed in air and ignited in a confined space. If unconfined, ignition will give rise to a Class A fire. Care should be taken to prevent the accumulation of dust. Dust is an explosion hazard. However, the explosive hazard is highly dependent on particle size; the finer the particles, the higher the explosion strength. Emptying of bags of powder directly into vessels where flammable vapors exist should be strictly prohibited because static discharges can be generated of sufficient strength to produce an explosion.

Storage

Material storage
Keep away from reactive metals (sodium, zinc, copper, calcium, etc.). Store at room temperature in the original container.

Technical measures/Storage conditions
Keep container tightly closed in a dry and well-ventilated place. The stacking height must not exceed three pallets.

Incompatible products
Keep away from:, concentrated peroxides, perchlorates, strong oxidizing agents

German storage class
13: Non-flammable solids.

8. Exposure controls / personal protection

EC Exposure Limit Values

Components	EU TWA	
Methanol	260 mg/m^3	200 PPM

Methanol
Skin Designation — Can be absorbed through the skin.

National occupational exposure limits (Germany)

Components	TRGS 900 (AGW)		STEL Factor
Methanol	270 mg/m^3	200 PPM	4
Respirable Dust	3 mg/m^3		2
Total Dust	10 mg/m^3		2

TRGS 905 / 907
Methanol
Skin designation — Components of the product may be absorbed into the body through the skin

ACGIH Exposure Limits

Components	TWA
Methanol	200 PPM
Respirable Dust	3 mg/m^3
Total Dust	10 mg/m^3

Components	STEL
Methanol	250 PPM

Engineering measures — General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred.

Personal protective equipment

General advice — Avoid contact with skin and eyes. Do not breathe dust. Use only in an area equipped with a safety shower. Hold eye wash fountain available.

Hygiene measures — When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Respiratory protection	No personal respiratory protective equipment normally required. If the dust exposure limit is exceeded, wear dust mask or respirator with particle filter. Equipment should conform to EN 136 or EN 140 and EN 143.
Eye protection	Tightly fitting safety goggles. Equipment should conform to EN 166.
skin protection	impervious clothing
Hand protection	Chemicals resistant gloves
Suitable material	nitrile rubber
Reference substance	Pentaerythritol
Type	Fleximax (Company COMASEC) or comparable article; or refer to glove manufacturer's recommendation
Evaluation	according to EN 374: level 6
Material thickness	approx 0.55 mm
Break through time	480 min
Suitable material	PVC / nitril rubber
Reference substance	Pentaerythritol
Type	Multiplus (Company COMASEC) or comparable article; or refer to glove manufacturer's recommendation
Evaluation	according to EN 374: level 6
Material thickness	approx 0.9 mm
Break through time	> 480 min

9. Physical and chemical properties

Appearance	
Form	Powder
Colour	white
Odor	odorless
Melting point/range	160 - 240°C
Bulk density	0.4 - 0.6 g/cm³ 20°C
pH	Neutral
Water solubility	hot water

10. Stability and reactivity

Stability	Stable
Conditions to avoid	Avoid dust formation.
Materials to avoid	Keep away from:, oxygen, peroxides, perchlorates, nitrates, oxidizing agents, Keep away from reactive metals (sodium, zinc, copper, calcium, etc.)
Thermal decomposition	Thermal decomposition can take place above 200°C. Thermal decomposition products may include oxides of carbon.

Hazardous reactions Hazardous polymerization does not occur.

11. Toxicological information

Acetic acid ethenyl ester, polymer with ethenol

Oral	LD50: > 5000 mg/kg, rat
Inhalation	LC50: > 20 mg/m³, rat, 1h
Skin irritation	No skin irritation
Species	rabbit
Skin Sensitization	nonsensitizer
Species	guinea pig
Method	Maximization
Eye Irritation	Mild eye irritation
Species	rabbit eye
Carcinogenic effects	No evidence of carcinogenicity respiratory tract epithelium
Study	inhalation study (28 months)
in vitro Mutagenicity	Ames test - negative
in vivo Mutagenicity	Mouse micronucleus - negative

12. Ecological information

Acetic acid ethenyl ester, polymer with ethenol

Toxicity to fish	LC50: 10 mg/l (96h)
Species	Lepomis macrochirus (Bluegill sunfish)
	LC50: 40 mg/l (96h)
Species	Pimephales promelas (Fathead minnow)
Toxicity to daphnia	EC50: 8.3 mg/l (48h) EC50: 8.3 mg/l (96h)
Species	Daphnia magna
Toxicity to bacteria	EC50: 50 mg/l (17h)
Method	DIN 38412 T.8
Biodegradation	90 %
Method	OECD 302 B (Zahn-Wellens Test)
Chemical Oxygen Demand (COD)	1640 mg/l

13. Disposal considerations

Product information Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal..

Uncleaned empty packaging Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse..

14. Transport information

ADR/RID	Not regulated
ADNR	Not regulated
ICAO/IATA	not restricted
IMDG	Not regulated

15. Regulatory information

Labelling in accordance with EC directives

The product does not require a hazard warning label in accordance with EC directives/the relevant national laws.

S-phrase(s)

S22 - Do not breathe dust.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S51 - Use only in well-ventilated areas

WGK Class	1
WGK Reg-Nr.	5095
WGK Source	Classification according to VwVwS, Annex 3 Information based on the main component

16. Other information

R-phrase(s)

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.

For further information, see:
For more information, other material safety data sheets or technical data sheets, please consult the Sekisui Specialty Chemicals home page at www.sekisui-sc.com
.

Changes against the previous version are marked by ***

Product name	Celvol E / Celvol SP, PVOH, copolymer		EU/EN
MSDS number	85855	**Revision Date**	Jun.25.2009
Revision Number	1	**Issuing date**	Jun.29.2009

Sources of key data used to compile the datasheet
The absence of data elements required by ANSI or 1907/2006 indicates, that no data meeting these requirements is available. Information contained in this safety data sheet is based on Sekisui Specialty Chemical owned data and public sources deemed valid or acceptable.

Further information
This information is based on our present state of knowledge. It shall describe our products regarding safety requirements and shall not be construed as a guarantee or statement of condition and/or quality.