Material Safety Data Sheet

Product name	Celvol® Polyvinyl alcohol, homopolymer		NA/EN
MSDS number	80523	**Revision Date**	Jun.25.2009
Revision Number	1	**Issuing date**	Aug.06.2009

1. Product and company identification

Product name

Celvol® Polyvinyl alcohol, homopolymer

Sekisui Specialty Chemicals America, LLC
1603 West LBJ Freeway, Suite 200
Dallas, TX 75234

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

Transportation emergency phone numbers:
For Chemical Emergency: Spill Leak Fire Exposure or Accident
Call CHEMTREC Day or Night
DOMESTIC NORTH AMERICA 800-424-9300
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

Emergency Overview

CAUTION!
Dust from this product can form an explosive organic dust cloud.

Product Description

Appearance

Form	Powder
Odor	odorless
Colour	white

Potential health effects

Routes of exposure
Skin, eyes, inhalation, ingestion.

Immediate effects

Inhalation	Dust irritating to respiratory tract. Symptoms of exposure may include: Nasal discharge, hoarseness, coughing, chest pain and breathing difficulty
Skin	Essentially non-irritating.
Eyes	Particulates may cause mechanical irritation. Symptoms of exposure may include: Eye irritation or burning sensation.
Ingestion	Essentially non-toxic.

Target organ effects
Overexposure (prolonged or repeated exposure) may cause:
Irritation of the respiratory tract
Local irritation at the site of exposure

Medical conditions which may be aggravated by exposure:
Significant exposure to this chemical may adversely affect people with acute or chronic disease of the:
Respiratory Tract

3. Composition/information on ingredients

Components	CAS-No	Percent %
Ethenol, homopolymer	9002-89-5	92 - 95

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

103 PV Alcohol; 107 PV Alcohol; 125 PV Alcohol; 125NS PV Alcohol; 125S PV Alcohol; 165 PV Alcohol; 165SF PV Alcohol; 305 PV Alcohol; 310 PV Alcohol; 325 PV Alcohol; 325LA PV Alcohol; 350 PV Alcohol; 825 PV Alcohol

Specific technical information on a Celvol grade should be obtained from the sales specification sheet available at www.sekisui-sc.com

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.

5. Fire-fighting measures

NFPA: **Health:** 0 **Flammability:** 1 **Instability:** 0

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.

Keep unnecessary people away; isolate hazard area and deny entry.

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

7. Handling and storage

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

Technical measures/Storage conditions
Keep container tightly closed in a dry and well-ventilated place

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

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

8. Exposure controls / personal protection

OSHA Exposure Limits

ACGIH Exposure Limits

Mexico National Exposure Limits

Exposure controls

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

Protective Equipment
A safety shower and eyebath should be readily available.

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.

Respiratory protection
Based on workplace contaminant level and working limits of the respirator, use a respirator approved by NIOSH. The following is the minimum recommended equipment for an occupational exposure level. To estimate an occupational exposure level see Section 8 and Section 11.

For concentrations > 1 and < 10 times the occupational exposure level: Use air-purifying respirator with full facepiece and organic vapor cartridge(s) or air-purifying full facepiece respirator with an organic vapor canister or a full facepiece powered air-purifying respirator fitted with organic vapor cartridge(s). The air purifying element must have an end of service life indicator, or a documented change out schedule must be established. Otherwise, use supplied air.

For concentrations more than 10 times the occupational exposure level and less than the lower of either 100 times the occupational exposure level or the IDLH: Use Type C full facepiece supplied-air respirator operated in positive-pressure or continuous-flow mode.

For concentrations > 100 times the occupational exposure level or greater than the IDLH level or unknown concentrations (such as in emergencies): Use self-contained breathing apparatus with full facepiece in positive-pressure mode or Type C positive-pressure full facepiece supplied-air respirator with an auxiliary positive-pressure self-contained breathing apparatus escape system.

For escape: Use self-contained breathing apparatus with full facepiece or any respirator specifically approved for escape.

Skin protection:
Wear impervious clothing and gloves to prevent contact. Neoprene is recommended. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

Eye/face protection:
Wear chemical goggles when there is a reasonable chance of eye contact..

9. Physical and chemical properties

Appearance

Form	Powder
Colour	white
Odor	odorless
Melting point/range	230 - 240°C
Bulk density	0.61 - 0.67 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.)

Hazardous Combustion or Decomposition Products:
Thermal decomposition products may include oxides of carbon.

Hazardous reactions
Hazardous polymerization does not occur.

11. Toxicological information

Ethenol, homopolymer

Oral		LD50: >5000 mg/kg, rat
Dermal		no data available
Inhalation		LC50: >24 mg/L, rat, 1h
Skin irritation		Non-irritant.
	Species	rabbit
Skin Sensitization		nonsensitizer
	Species	guinea pig
	Method	Maximization
Eye Irritation		Non-irritant
	Species	rabbit eye
in vitro Mutagenicity		Ames test - negative with and without activation Mouse lymphoma cell gene-mutation - negative
in vivo Mutagenicity		Mouse micronucleus - negative
Reproductive toxicity		No toxicity to reproduction

12. Ecological information

Ethenol, homopolymer

Toxicity to fish		LC50: >5000 mg/l (96h)
	Species	Danio rerio (Zebra fish)
		LC50: 40 mg/l (96h)
	Species	Pimephales promelas (Fathead minnow)
Toxicity to daphnia		EC50: 8.3 mg/l (48h)
	Species	Daphnia magna
Toxicity to bacteria		EC50: 50 mg/l
	Method	DIN 38412 T.8

Ethenol, homopolymer

Biodegradation	90 %
Method	OECD 302 B (Zahn-Wellens Test)
Chemical Oxygen Demand (COD)	ca. 17000 mgO2/g
Bioaccumulation	Bioaccumulative potential - low

13. Disposal considerations

Disposal Considerations:
Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste.

14. Transport information

US Department of Transportation	Not regulated
TDG	Not regulated
ICAO/IATA	not restricted
IMDG	Not regulated

15. Regulatory information

U.S. STATE REGULATIONS
Chemicals associated with the product which are subject to the state right-to-know regulations are listed along with the applicable state(s):
none

U.S. FEDERAL REGULATIONS

TSCA Inventory:
We certify that all components are either on the TSCA inventory or qualify for an exemption.

Environmental Regulations:

SARA 311:

Acute health:	No

Chronic health:	No
Fire:	No
Sudden release of pressure:	No
Reactive:	No

INTERNATIONAL REGULATIONS

International Chemical Inventory
Listed on the chemical inventories of the following countries or qualifies for an exemption:
AUSTRALIA,CHINA,CANADA,.KOREA,PHILIPPINES, JAPAN

16. Other information

Prepared By
Product Stewardship Department
Sekisui Specialty Chemicals

NFPA:	Health: 0	Flammability: 1	Instability: 0
HMIS:	Health: 0	Flammability: 1	Physical hazard: 0

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

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

Changes against the previous version are marked by ***

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