

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

SELVOL™ Polyvinyl alcohol, 5-30% solutions

Trade Names

The following specific grades are covered by this SDS: 15-103, 21-103, 08-125, 09-325

Synonyms

Polyvinyl alcohol, PVA

Chemical Family

Ethenol, homopolymer

Product Use

Intermediate, surfactant, adhesives, Food/feedstuff additives, Packaging materials, Auxiliary for leather, Auxiliary for textile.

Restrictions on Use

None known.

Details of the supplier of the safety data sheet

Sekisui Specialty Chemicals America, LLC
1501 LBJ Freeway, Suite 530
Dallas, TX 75234

Emergency Phone Numbers:

In USA: CHEMTREC 800-424-9300

Outside USA: CHEMTREC 703-527-3887 (collect calls accepted)

Phone: +1-972-277-2900

www.sekisui-sc.com

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Skin Sensitization - Category 1

GHS Label Elements

Symbol(s)



Signal Word

Warning

Hazard Statement(s)

May cause an allergic skin reaction.

Precautionary Statement(s)

Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves.



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Response

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Specific treatment (see label).

Storage

None needed according to classification criteria.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
7732-18-5	Water	70.0-95.0
9002-89-5	Polyvinyl alcohol	5.0-30.0
127-09-3	Sodium acetate	0.01-0.1
79-20-9	Methyl acetate	0.001-0.1
67-56-1	Methyl alcohol	0.001-0.1
55965-84-9	5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone	0.0038

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

Wash thoroughly after handling.

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin

Wash with plenty of soap and water. If skin irritation or rash occurs, seek medical advice/attention. Wash contaminated clothing before reuse.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Ingestion

If a large amount is swallowed, get medical attention.

Most Important Symptoms/Effects

Acute

May cause an allergic skin reaction.

Delayed

May cause an allergic skin reaction.



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Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Note to Physicians

Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

The product itself does not burn in solution. dry polymer: Use dry chemical, carbon dioxide, alcohol-resistant foam or water spray.

Unsuitable Extinguishing Media

Do not scatter spilled material with high-pressure water streams.

Special Hazards Arising from the Chemical

carbon monoxide, carbon dioxide.

Advice for firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Fire Fighting Measures

Keep unnecessary people away, isolate hazard area and deny entry. Do not enter confined spaces unless adequately ventilated. Cool containers with water spray until well after the fire is out. Keep away from heat, sparks and flame.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Keep unnecessary people away, isolate hazard area and deny entry. The mixture is slippery when wet. Avoid contact with skin and eyes.

Methods and Materials for Containment and Cleaning Up

Use approved industrial vacuum cleaner for removal. Absorb spillage to prevent material damage. Collect in closed and suitable containers for disposal.

Environmental Precautions

Prevent environmental discharge consistent with regulatory requirements.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Use only outdoors or in a well-ventilated area. Spilled polymer solution is very slippery. Use care to avoid falls.

Wash thoroughly after handling.

Conditions for Safe Storage, Including any Incompatibilities

None needed according to classification criteria.

Protect from freezing. Store at room temperature. Store in original container.

Incompatible Materials

Oxidizing agents, acids, peroxides, perchlorates, nitrates, reactive metals.



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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Polyvinyl alcohol	9002-89-5
ACGIH:	10 mg/m ³ TWA inhalable particles, recommended ; 3 mg/m ³ TWA respirable particles, recommended (related to Particulates not otherwise classified (PNOC))
OSHA (US):	15 mg/m ³ TWA total dust ; 5 mg/m ³ TWA respirable fraction (related to Particulates not otherwise classified (PNOC))
	15 mppcf TWA respirable fraction ; 5 mg/m ³ TWA respirable fraction ; 50 mppcf TWA total dust ; 15 mg/m ³ TWA total dust (related to Particulates not otherwise classified (PNOC))
Methyl acetate	79-20-9
ACGIH:	200 ppm TWA
	250 ppm STEL
NIOSH:	200 ppm TWA ; 610 mg/m ³ TWA
	250 ppm STEL ; 760 mg/m ³ STEL
	3100 ppm IDLH (10% LEL)
OSHA (US):	200 ppm TWA ; 610 mg/m ³ TWA
Mexico:	200 ppm TWA VLE-PPT ; 610 mg/m ³ TWA VLE-PPT
	250 ppm STEL [PPT-CT] ; 760 mg/m ³ STEL [PPT-CT]
Methyl alcohol	67-56-1
ACGIH:	200 ppm TWA
	250 ppm STEL
	Skin - potential significant contribution to overall exposure by the cutaneous route
NIOSH:	200 ppm TWA ; 260 mg/m ³ TWA
	250 ppm STEL ; 325 mg/m ³ STEL
	Potential for dermal absorption
	6000 ppm IDLH



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Europe:	200 ppm TWA ; 260 mg/m3 TWA
	Possibility of significant uptake through the skin
OSHA (US):	200 ppm TWA ; 260 mg/m3 TWA
Mexico:	200 ppm TWA VLE-PPT ; 260 mg/m3 TWA VLE-PPT
	250 ppm STEL [PPT-CT] ; 310 mg/m3 STEL [PPT-CT]
	Skin - potential for cutaneous absorption

EU - Occupational Exposure (98/24/EC) - Binding Biological Limit Values and Health Surveillance Measures

There are no biological limit values for any of this product's components.

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

Methyl alcohol (67-56-1)

15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)

Engineering Controls

Provide local exhaust or process enclosure ventilation system. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear splash resistant safety goggles.

Skin Protection

Wear appropriate chemical resistant clothing. Recommended material type: neoprene.

Respiratory Protection

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	viscous solution	Physical State	Liquid
Odor	odorless	Color	colorless to yellow
Odor Threshold	Not available	pH	5 - 7.5 , conc: 10%
Melting Point	Not available	Boiling Point	100 C
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	Not available	Flammability (solid, gas)	Not available
Autoignition Temperature	Not available	Flash Point	Not available
Lower Explosive Limit	Not available	Decomposition temperature	Not available



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Upper Explosive Limit	Not available	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	1.02 - 1.058 @ 20 °C
Water Solubility	Not available	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Density	Not available	Molecular Weight	Not available

Section 10 - STABILITY AND REACTIVITY

Reactivity

No hazard expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Protect from freezing.

Incompatible Materials

Oxidizing agents, acids, peroxides, perchlorates, nitrates, reactive metals.

Hazardous decomposition products

oxides of carbon.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

No information on significant adverse effects.

Skin Contact

May cause slight irritation. May cause an allergic skin reaction.

Eye Contact

May cause slight irritation. viscous polymer solution.

Ingestion

May cause gastrointestinal irritation.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Water (7732-18-5)

Oral LD50 Rat >90 mL/kg

Polyvinyl alcohol (9002-89-5)

LD50 Rat >5000 mg/kg

LC50 Rat >24 mg/L 1hr

Sodium acetate (127-09-3)

Oral LD50 Rat 3530 mg/kg

Dermal LD50 Rabbit >10 g/kg

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Inhalation LC50 Rat >30 g/m³ 1 h

Methyl acetate (79-20-9)

Oral LD50 Rat >5 g/kg

Dermal LD50 Rabbit >5 g/kg

Inhalation LC50 Rat 16000 ppm 4 h

Methyl alcohol (67-56-1)

Oral LD50 Rat 6200 mg/kg

Inhalation LC50 Rat 22500 ppm 8 h

5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone (55965-84-9)

Oral LD50 Rat 53 mg/kg

Product Toxicity Data

Acute Toxicity Estimate

Dermal	> 2000 mg/kg
Oral	> 2000 mg/kg

Immediate Effects

No information on significant adverse effects. May cause an allergic skin reaction.

Delayed Effects

May cause an allergic skin reaction.

Irritation/Corrosivity Data

No information on significant adverse effects.

Respiratory Sensitization

No data available.

Dermal Sensitization

May cause an allergic skin reaction.

Component Carcinogenicity

Polyvinyl alcohol	9002-89-5
IARC:	Supplement 7 [1987] ; Monograph 19 [1979] (Group 3 (not classifiable))

Germ Cell Mutagenicity

Ames test found to be negative. No hazard expected.

Tumorigenic Data

No data available

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

eye disorders, gastrointestinal disorders



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Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Polyvinyl alcohol	9002-89-5
Fish:	LC50 96 hr Danio rerio (Zebra fish) >5000 mg/L; LC50 96 hr Pimephales promelas (Fathead minnow) 40 g/L
Invertebrate:	EC50 48 hr Daphnia magna 8300 mg/L
Sodium acetate	127-09-3
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L IUCLID
Methyl acetate	79-20-9
Fish:	LC50 96 h Pimephales promelas 295 - 348 mg/L [flow-through]; LC50 96 h Brachydanio rerio 250 - 350 mg/L [static]
Algae:	EC50 72 h Desmodesmus subspicatus >120 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 1026.7 mg/L IUCLID
Methyl alcohol	67-56-1
Fish:	LC50 96 h Pimephales promelas 28200 mg/L [flow-through]; LC50 96 h Pimephales promelas >100 mg/L [static]; LC50 96 h Oncorhynchus mykiss 19500 - 20700 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 18 - 20 mL/L [static]; LC50 96 h Lepomis macrochirus 13500 - 17600 mg/L [flow-through]

Bioaccumulative Potential

Low.

Biodegradation

90%

Chemical Oxygen Demand (COD)

Ca. 17000 mgO₂/g

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components

Section 14 - TRANSPORT INFORMATION

US DOT Information:

UN/NA #: Not Regulated



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TDG Information:
UN#: Not Regulated

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Methyl alcohol	67-56-1
SARA 313:	1 % de minimis concentration
CERCLA:	5000 lb final RQ ; 2270 kg final RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes **Chronic Health:** No **Fire:** No **Pressure:** No **Reactivity:** No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Methyl acetate	79-20-9	Yes	Yes	Yes	Yes	Yes
Methyl alcohol	67-56-1	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects

Methyl alcohol	67-56-1
Repro/Dev. Tox	developmental toxicity , 3/16/2012

Canada Regulations

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Methyl acetate	79-20-9
	1 %
Methyl alcohol	67-56-1
	1 %



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Component Analysis - Inventory

Water (7732-18-5)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	No	Yes	Yes	Yes	Yes

Polyvinyl alcohol (9002-89-5)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	No	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes

Sodium acetate (127-09-3)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes

Methyl acetate (79-20-9)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes

Methyl alcohol (67-56-1)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes

5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone (55965-84-9)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
No	DSL	No	No	Yes	Yes	No	Yes	No	No	Yes	Yes	No	Yes



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Section 16 - OTHER INFORMATION

HMIS Rating

Health: 0 Fire: 1 Reactivity: Not available

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 0 Fire: 1 Reactivity: Not available

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

Updated SDS: 12/13/2016

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KECI - Korea Existing Chemicals Inventory; KECL - Korea Existing Chemicals List; KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; NDSL - Non-Domestic Substance List (Canada); NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

Disclaimer:

Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights