



# Safety Data Sheet

acc. to OSHA's Revised Hazard Communication Standard  
(HCS 2012)

Printing date 03/20/2015

Reviewed on 03/20/2015

## 1 Identification

- **Product identifier**
- **Trade name:** Polyvinyl Alcohol (PVA) BF-series
- **Synonyms:** PVOH
- **CAS Number:**  
9002-89-5
- **Relevant identified uses of the substance or mixture and uses advised against :**
- **Application of the substance / the mixture**  
Raw Material for:  
Synthetic resin  
Adhesive  
Emulsion polymerization aid, protective colloid, vinylon fiber, paper adhesive, thickener/modifier for PVAc glues, textile sizing agent, paper coatings, release liner, water-soluble film (for packaging), biodegradable plastic backing sheet, Carbon dioxide barrier for PET bottles, Hydrographics film, PVA fiber, polyvinyl nitrate, surfactant for polymer encapsulated nanobeads, protective chemical-resistant gloves, polyvinyl butyral
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Chang Chun Petrochemical Co. Ltd.  
7th Fl., No. 301, SongJiang Rd.  
Taipei City, 10483, TAIWAN  
Tel: +886-2-2500-1800 Fax: +886-2-2501-8018  
WWW.CCP.COM.TW
- **Information department:**  
Product safety department  
SDS-info@ccp.com.tw
- **Emergency telephone number:** During normal opening times: +886 2 2500 - 1800 (8:30-17:30; GMT+8)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
The substance is not classified according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** None or Not Regulated.
- **Hazard pictograms** None or Not Regulated.
- **Signal word** None or Not Regulated.
- **Hazard statements** None or Not Regulated.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards** Powdered material may form explosive dust-air mixtures.



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### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
9002-89-5 polyvinyl alcohol (fully hydrolyzed) >95%

· <b>Dangerous components:</b>	
67-56-1	methanol
	<3%

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Generally the product does not irritate the skin.  
Rinse cautiously with water for several minutes.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Do not induce vomiting unless directed to do so by medical personnel.  
Seek immediate medical advice.
- **Most important symptoms and effects, both acute and delayed**  
Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eye, skin, nose, and throat.
- **Indication of any immediate medical attention and special treatment needed**  
Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Alcohol resistant foam  
Fire-extinguishing powder  
Carbon dioxide  
Water spray
- **Special hazards arising from the substance or mixture**  
The product in the delivered form is not dust explosion capable. However, the enrichment of fine dust can lead to the danger of dust explosion.
- **Advice for firefighters**
- **Protective equipment:**  
Wear fully protective suit.  
Wear self-contained respiratory protective device.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Avoid formation of dust.  
Use respiratory protective device against the effects of fumes/dust/aerosol.  
Product forms slippery surface when combined with water.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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- **Methods and material for containment and cleaning up:**

Sweep up. Contain spilled material if possible. Collect in suitable and properly labeled containers.  
Pick up and arrange disposal without creating dust.  
Dispose contaminated material as waste according to item 13.  
Dispose of the collected material according to regulations.

- **Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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## 7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Prevent formation of dust.  
Use local exhaust ventilation if dust and aerosol are formed during handling.  
Any deposit of dust which cannot be avoided must be regularly removed.  
Ensure good ventilation/exhaustion at the workplace.

- **Information about protection against explosions and fires:**

Dust can combine with air to form an explosive mixture.  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Protect against electrostatic charges.

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Store in cool, dry place in tightly closed receptacles.

- **Further information about storage conditions:**

Protect from humidity and water.  
Protect from heat and direct sunlight.  
Store receptacle in a well ventilated area.

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

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## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:**

Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines.

Local exhaust ventilation may be necessary for some operations.

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

**67-56-1 methanol**

PEL	Long-term value: 260 mg/m <sup>3</sup> , 200 ppm
REL	Short-term value: 325 mg/m <sup>3</sup> , 250 ppm Long-term value: 260 mg/m <sup>3</sup> , 200 ppm Skin
TLV	Short-term value: 328 mg/m <sup>3</sup> , 250 ppm Long-term value: 262 mg/m <sup>3</sup> , 200 ppm Skin; BEI

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· <b>Ingredients with biological limit values:</b>	
<b>67-56-1 methanol</b>	
BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Wash hands before breaks and at the end of work.  
Do not eat, drink, smoke or sniff while working.
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **Protection of hands:**



Protective gloves

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

- **Material of gloves**  
Nitrile rubber, NBR  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
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 with side shields conforming to EN166, ANSI 87.1-2010, or equivalent.

- **Body protection:**  
Protective work clothing  
The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Solid
Color:	White
Odor:	Odorless
Odour threshold:	Not determined.
pH-value:	5-7 (4wt% solution)
- **Change in condition**

Melting point/Melting range:	180-230 °C (356-446 °F)
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<b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Ignition temperature:</b>	440 °C (824 °F) (Dust)
· <b>Decomposition temperature:</b>	>220 °C (>428 °F)
· <b>Auto igniting:</b>	Not determined.
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· <b>Explosion limits:</b>	
<b>Lower:</b>	35 g/m <sup>3</sup> (Dust)
<b>Upper:</b>	6.26 kg/cm <sup>3</sup> (Dust)
· <b>Vapor pressure:</b>	Not determined.
· <b>Density:</b>	1.23-1.31 g/cm <sup>3</sup> (10.264-10.932 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Soluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>VOC content:</b>	2.0 % 20.0 g/l / 0.17 lb/gl
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** When properly handled and stored, no dangerous reaction is known.
- **Chemical stability** This product is stable under prescribed use and storage.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.  
To avoid thermal decomposition do not overheat.
- **Possibility of hazardous reactions**  
As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.  
Forms explosive gas mixture with air.
- **Conditions to avoid**  
Protect from heat. Keep ignition sources away.  
Avoid static discharge.
- **Incompatible materials:** Strong oxidizing agents
- **Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Aldehyde  
Acids

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## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**67-56-1 methanol**

Oral	LD50	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)

- **Skin corrosion/irritation:**

Not classified based on available data.  
Dust particles may mechanically irritate the skin/eye.

- **Serious eye damage/eye irritation:**

Not classified based on available data.  
Dust particles may mechanically irritate the skin/eye.

- **Respiratory or skin sensitization:** Not classified based on available data.

- **Germ Cell Mutagenicity:** Not classified based on available data.

- **Carcinogenicity:** Not classified based on available data.

- **Specific Target Organ Toxicity - Single Exposure (STOT SE):** Not classified based on available data.

- **Specific Target Organ Toxicity - Repeated Exposure (STOT RE):**

Not classified based on available data.

- **Aspiration Hazard:** Not classified based on available data.

- **Primary irritant effect:**

- **on the skin:** Dust particles may mechanically irritate the skin/eye.

- **on the eye:** Dust particles may mechanically irritate the skin/eye.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

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.  
The substance is not subject to classification.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

9002-89-5	polyvinyl alcohol (fully hydrolyzed)	3
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- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

Not classified based on available data.

**9002-89-5 polyvinyl alcohol (fully hydrolyzed)**

LC50/96h	>10000 mg/l (fish)
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- **Persistence and degradability**

Easily biodegradable  
Degradation : ~90%% (30d, OECD N/A; B.O.D.)

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Source: External (M)SDS

- **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.
  - **Additional ecological information:**
  - **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  - **Other adverse effects** No further relevant information available.
- 

## 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:**  
Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.  
Any disposal method should also comply with national, regional, provincial, and local laws.
  - **Uncleaned packagings:**
  - **Recommendation:**  
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.  
Disposal must be made according to official regulations.
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## 14 Transport information

- **UN-Number**
  - **DOT, ADR, ADN, IMDG, IATA** None or Not Regulated.
  - **UN proper shipping name**
  - **DOT, ADR, ADN, IMDG, IATA** None or Not Regulated.
  - **Transport hazard class(es)**
  - **DOT, ADR, ADN, IMDG, IATA**
  - **Class** None or Not Regulated.
  - **Packing group**
  - **DOT, ADR, IMDG, IATA** None or Not Regulated.
  - **Environmental hazards:**
  - **Marine pollutant:** No
  - **Special precautions for user** Not applicable.
  - **UN "Model Regulation":** -
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## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· <b>Section 355 (extremely hazardous substances):</b>
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Substance is not listed.
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· <b>Section 313 (Specific toxic chemical listings):</b>
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67-56-1   methanol
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· <b>TSCA (Toxic Substances Control Act):</b>
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Substance is listed.
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· **Proposition 65**· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

67-56-1 | methanol

· **Carcinogenic categories**· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **Status of global inventories:**

All component(s) within this product is listed or exempted from the following country's chemical inventory:

USA - TSCA

Australia - AICS

Canada - DSL

China - IECSC

Japan - ENCS

Korea - KECI

New Zealand - NZIoC

Philippine - PICCS

Taiwan - ECSI

Mexico - INSQ

## 16 Other information

· **Date of preparation / last revision** 03/20/2015 / -· **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)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· **Sources**

Most toxicological and eco-toxicological data are obtained from European Chemical Agency (ECHA)'s public dissemination website.

<http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>

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**General Disclaimers:**

CCP Group recommends that all the users/customers/recipients to study this Safety Data Sheet (SDS) carefully and understand all the data or any potential hazards associated with this product. Please consult with appropriate expert if necessary. The information herein is provided in good faith and is believed to be accurate on the date of issue. No warranty; expressed or implied; is given. It is the customer's/user's responsibility to ensure that they are complying with local, regional, state, provincial, and/or national laws in using this product, as regulatory requirement may differ at each level. It is also the customer's/user's responsibility to determine the necessary condition required for using this product safely, as actual operating or usage conditions are beyond CCP Group's control. CCP Group will not be responsible for any SDS obtained from elsewhere other than from CCP Group. If you are unsure whether the SDS you have is current or have obtained the SDS from another source; please contact us to obtain the latest version.

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