

Safety data sheet
according to 1907/2006/EC, Article 31

Page 1/7

Printing date 19.05.2018
Revision: 18.05.2018
Version number 2

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

- **1.1 Product identifier**
- **Trade name:** Polyvinyl Alcohol (PVA) 4-88
- **Article number:** 257190
- **Registration number**
A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration, the registration is envisaged for a later registration deadline or it is a mixture.
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
Biochemistry
Laboratory chemical
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
AppliChem GmbH
Ottoweg 4
D-64291 Darmstadt
- Tel.: +49 (0)6151 93570
Fax.: +49 (0)6151 935711
msds@applichem.com
- **Further information obtainable from:** Dept. Compliance
- **1.4 Emergency telephone number:** +49(0)6151 93570 (Inside normal business hours)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified, according to the CLP regulation.
- **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

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

• **Dangerous components:**

CAS: 67-56-1	methanol	>2.5-≤3%
EINECS: 200-659-6	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	

(Contd. on page 2)

Trade name: Polyvinyl Alcohol (PVA) 4-88

(Contd. of page 1)

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth.
make victim drink water (maximum of 2 drinking glasses)
If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
Irritation to eyes, skin and mucous membrane
Coughing
- **4.3 Indication of any immediate medical attention and special treatment needed**
Treat symptomatically and supportively.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Water, CO₂, foam, powder.
- **5.2 Special hazards arising from the substance or mixture**
Development of hazardous combustion gases or vapours possible in the event of fire.
In case of fire, the following can be released:
carbon oxides (CO, CO₂).
Ambient fire may liberate hazardous vapours.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
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**
Avoid formation of dust.
Do not inhale dust.
Ensure adequate ventilation
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Pick up mechanically.
Avoid generation of dusts.
Clean up affected area.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Provide suction extractors if dust is formed.

(Contd. on page 3)

Trade name: Polyvinyl Alcohol (PVA) 4-88

(Contd. of page 2)

- **Information about fire - and explosion protection:**
Protect against electrostatic charges.
Dust can combine with air to form an explosive mixture.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container sealed.
- **Recommended storage temperature:** +15 - +25°C
- **Storage class:** 11
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

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

67-56-1 methanol

WEL	Short-term value: 333 mg/m ³ , 250 ppm
	Long-term value: 266 mg/m ³ , 200 ppm
Sk	

- **DNELs**

67-56-1 methanol

Oral	Acute - systemic effects, general population	8 mg/kg
	Long-term - systemic effects, general population	8 mg/kg
Dermal	Acute - systemic effects, worker	40 mg/kg
	Long-term - systemic effects, worker	40 mg/kg
Inhalative	Acute - systemic effects, general population	8 mg/kg
	Long term - systemic effects, general population	8 mg/kg
	Acute - local effects, worker	260 mg/m ³
	Acute - systemic effects, worker	260 mg/m ³
	Long-term - systemic effects, worker	260 mg/m ³
	Long-term - local effects, worker	260 mg/m ³
	Acute - systemic effects, general population	50 mg/m ³
	Acute - local effects, general population	50 mg/m ³
	Long-term - systemic effects, general population	50 mg/m ³
	Long-term - local effects, general population	50 mg/m ³

- **PNECs**

67-56-1 methanol

Aquatic compartment - freshwater	154 mg/L
Aquatic compartment - marine water	15.4 mg/L
Aquatic compartment - water, intermittent releases	1,540 mg/L
Aquatic compartment - sediment in freshwater	570.4 mg/kg
Terrestrial compartment - soil	23.5 mg/kg
Sewage treatment plant	100 mg/L

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.

(Contd. on page 4)

Trade name: Polyvinyl Alcohol (PVA) 4-88

(Contd. of page 3)

Wash hands before breaks and at the end of work.

Change contaminated clothing.

• **Respiratory protection:**

Filter P2

Required when dusts are generated.

• **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

• **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.

• **For the permanent contact gloves made of the following materials are suitable:**

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Value for the permeation: Level ≥ 480 min

• **As protection from splashes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Value for the permeation: Level ≥ 480 min

• **Eye protection:** Safety glasses

• **Body protection:**

Protective work clothing

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

SECTION 9: Physical and chemical properties

• **9.1 Information on basic physical and chemical properties**

• **General Information**

• **Appearance:**

Form: Granulate

Colour: White

• **Odour:** Odourless

• **Odour threshold:** Not determined.

• **pH-value at 20 °C:** 4.5-7

• **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: Undetermined.

• **Flash point:** 93 °C

• **Flammability (solid, gas):** Not determined.

• **Decomposition temperature:** Not determined.

• **Auto-ignition temperature:** Product is not selfigniting.

• **Explosive properties:** Product does not present an explosion hazard.

• **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

(Contd. on page 5)

Trade name: Polyvinyl Alcohol (PVA) 4-88

(Contd. of page 4)

· Vapour pressure:	Not applicable.
· Density:	Not determined.
· Bulk density:	400-600 kg/m ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Soluble.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Organic solvents:	2.9 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No dangerous reactions known.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Strong heating
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Risk of dust explosion if enriched with fine dust in the presence of air.
- **10.5 Incompatible materials:**
strong oxidants
strong acids
- **10.6 Hazardous decomposition products:** In the event of fire: See chapter 5

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:**

Components	Type	Value	Species
67-56-1 methanol			
Oral	LD50	5,628 mg/kg (rat)	
Dermal	LD50	17,100 mg/kg (rabbit)	

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **After inhalation:** No irritant effect.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

· Repeated dose toxicity

67-56-1 methanol			
Inhalative	NOAEL	1.06 mg/l (rat)	

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.

(Contd. on page 6)

Trade name: Polyvinyl Alcohol (PVA) 4-88

(Contd. of page 5)

· **Reproductive toxicity**

67-56-1 methanol

NOAEL (Fertility) 0.13 mg/kg bw/day (rat)

Based on available data, the classification criteria are not met.

- **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 toxicity:**

Type of test	Effective concentration	Method	Assessment
--------------	-------------------------	--------	------------

67-56-1 methanol

EC50/48 h	>10,000 mg/l (daphnia magna)
EC50/96 h	22,000 mg/l (Algae)
LC50/96 h	15,400 mg/l (fish)

- **12.2 Persistence and degradability**

The surfactants contained in the product correspond to the legislation on the environmental compatibility of detergents and are biodegradable.

- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow to enter waters, waste water, or soil.

- **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**

Chemicals must be disposed of in compliance with the respective national regulations.

- **Uncleaned packaging:**

- **Recommendation:**

Disposal must be made according to official regulations.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**

· ADR, ADN, IMDG, IATA	Void
-------------------------------	------

- **14.2 UN proper shipping name**

· ADR, ADN, IMDG, IATA	Void
-------------------------------	------

- **14.3 Transport hazard class(es)**

· ADR, ADN, IMDG, IATA	
· Class	Void

(Contd. on page 7)

Trade name: Polyvinyl Alcohol (PVA) 4-88

(Contd. of page 6)

· 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 Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 69
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **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.

· **Department issuing SDS:** Dept. Compliance

· **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
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 3: Acute toxicity – Category 3
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1