

# deffner & Johann

Produkte für DENKMALPFLEGE | RESTAURIERUNG | ART HANDLING – SEIT 1880.

## TECHNISCHES DATENBLATT

2516010 | Polyvinylalkohol 4-98

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# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Name of the substance** Polyvinyl alcohol, fully saponified4-98  
**Trade name of the substance** 9002-89-5 (CAS number)  
**Identification number**  
**Registration number**  
**Synonyms**

**Issue date** 13-September-2017  
**Version number** 06  
**Revision date** 13-September-2017  
**Supersedes date** -

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** For industrial use only. Additive. Adhesive. Auxiliary. Binder. Coatings. Protective colloid/dispersing agent. Raw material.  
**Uses advised against** None known.

### 1.3. Details of the supplier of the safety data sheet

#### Supplier:

**Company name** Deffner & Johann GmbH  
**Address** Mühläckerstr. 13  
D-Röthlein 97520Germany

**Telephone** +49-9723-9350-0  
**e-mail** product-safety@kuraray.com

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**Emergency telephonenumber** +49-9723-9350-0  
**(Mo-Fr 08:00-15:00)**

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

**Hazard summary** Dusts may irritate the respiratory tract, skin and eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Liberated dust may irritate throat and respiratory system and cause coughing. Prolonged contact may cause dryness of the skin.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Hazard pictograms** None.  
**Signal word** None.  
**Hazard statements** The product does not meet the criteria for classification.

#### Precautionary statements

**Prevention** Use personal protective equipment as required.  
**Response** No specific first aid measures noted.  
**Storage** Store in a dry area. Store in a closed container.  
**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Supplemental label information** None.

**2.3. Other hazards** Fine particles may form explosive mixtures with air. This material does not ignite easily; however, feasible precautions against dust explosion are recommended. Not a PBT or vPvB substance or mixture.

**Substance(s) formed under the conditions of use** Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

#### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Polyvinyl alcohol, fully saponified	>93	9002-89-5	-	-	
<b>Classification:</b>	-	-	-	-	
Methanol (Impurity)	<3	67-56-1 200-659-6	01-2119433307-44-XXXX	603-001-00-X	#
<b>Classification:</b>	Flam. Liq. 2;H225, Acute Tox. 3;H301, Acute Tox. 3;H311, Acute Tox. 3;H331, STOT SE 1;H370				

#### List of abbreviations and symbols that may be used above

#: This substance has workplace exposure limit(s).

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The full text for all H-statements is displayed in section 16.

## SECTION 4: First aid measures

**General information** If you feel unwell, seek medical advice (show the label where possible).

### 4.1. Description of first aid measures

**Inhalation** If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Do not rub eye. Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. If ingestion of a large amount does occur, call a poison control centre immediately.

**4.2. Most important symptoms and effects, both acute and delayed** Contact with dust: Irritation of eyes and mucous membranes. Coughing.

**4.3. Indication of any immediate medical attention and special treatment needed** Provide general supportive measures and treat symptomatically.

## SECTION 5: Firefighting measures

**General fire hazards** The product is not flammable. The product may form dust and can accumulate electrostatic charges, which may cause an electrical spark (ignition source). Use proper grounding procedures.

### 5.1. Extinguishing media

**Suitable extinguishing media** Water fog. Foam. Dry powder. Carbon dioxide (CO<sub>2</sub>). Use fire-extinguishing media appropriate for surrounding materials. Apply extinguishing media carefully to avoid creating airborne dust.

**Unsuitable extinguishing media** Do not use a solid water stream as it may scatter and spread fire.

**5.2. Special hazards arising from the substance or mixture** Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Special fire fighting procedures** Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to cool unopened containers.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Keep unnecessary personnel away. Avoid inhalation of dust and contact with skin and eyes. Wear appropriate protective equipment and clothing during clean-up.

**For emergency responders** Use personal protection recommended in Section 8 of the SDS.

**6.2. Environmental precautions** Environmental manager must be informed of all major spillages.

### 6.3. Methods and material for containment and cleaning up

Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Do not use compressed air when cleaning.

### 6.4. Reference to other sections

For personal protection, see section 8 of the SDS.  
For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Minimise dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a well-ventilated place. Store away from incompatible materials (see section 10 of the SDS).

### 7.3. Specific end use(s)

For industrial use only. Additive. Adhesive. Auxiliary. Binder. Coatings. Protective colloid/dispersing agent. Raw material.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Dust	TWA	4 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>	Respirable dust. Inhalable dust.
Methanol (Impurity) (CAS 67-56-1)	STEL	333 mg/m <sup>3</sup>	
	TWA	250 ppm 266 mg/m <sup>3</sup> 200 ppm	

##### EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
Methanol (Impurity) (CAS 67-56-1)	TWA	260 mg/m <sup>3</sup>  200 ppm

#### Biological limit values

No biological exposure limits noted for the ingredient(s).

#### Recommended monitoring procedures

Follow standard monitoring procedures.

#### Derived no effect levels (DNELs)

Not available.

#### Predicted no effect concentrations (PNECs)

Not available.

#### Exposure guidelines

##### UK EH40 WEL: Skin designation

Methanol (Impurity) (CAS 67-56-1)

Can be absorbed through the skin.

### 8.2. Exposure controls

#### Appropriate engineering controls

Provide sufficient ventilation for operations causing dust formation. Follow above occupational exposure limit values for dusts. Ventilate as needed to control airborne dust. Use explosion-proof electrical equipment if airborne dust levels are high.

#### Individual protection measures, such as personal protective equipment

##### General information

Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

##### Eye/face protection

Risk of contact: Wear approved safety goggles.

<b>Skin protection</b>	
- <b>Hand protection</b>	Wear protective gloves. In full contact: Glove material: Nitrile rubber. Layer thickness: 0.12 mm. Breakthrough time: >=480 min. In splash contact: Glove material: Nitril rubber Layer thickness: 0.12 mm Breakthrough time: >=480 min.
- <b>Other</b>	Wear suitable protective clothing. It is a good industrial hygiene practice to minimise skin contact.
<b>Respiratory protection</b>	In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter (type P2).
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
<b>Environmental exposure controls</b>	Contain spills and prevent releases and observe national regulations on emissions.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Granules.
<b>Physical state</b>	Solid.
<b>Form</b>	Solid. Granules.
<b>Colour</b>	White.
<b>Odour</b>	Odourless.
<b>Odour threshold</b>	Not available.
<b>pH</b>	5 - 7
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not applicable.
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	Not applicable.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapour pressure</b>	Not applicable.
<b>Vapour density</b>	Not applicable.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	No data available.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	Not oxidising.

### 9.2. Other information

<b>Bulk density</b>	400 - 600 kg/m <sup>3</sup>
<b>Density</b>	1.19 g/cm <sup>3</sup> estimated
<b>Percent volatile</b>	< 5 % w/w

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>10.2. Chemical stability</b>	Material is stable under normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	Hazardous polymerisation does not occur.

<b>10.4. Conditions to avoid</b>	Avoid dust close to ignition sources. Keep away from heat, sparks and open flame. Contact with incompatible materials. Minimise dust generation and accumulation.
<b>10.5. Incompatible materials</b>	Strong oxidising agents. Strong acids.
<b>10.6. Hazardous decomposition products</b>	Carbon oxides.

## SECTION 11: Toxicological information

**General information** Dusts or powder may irritate the respiratory tract, skin and eyes.

### Information on likely routes of exposure

<b>Inhalation</b>	Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. May be harmful if inhaled.
<b>Skin contact</b>	Components of the product may be absorbed into the body through the skin. Dust may irritate skin.
<b>Eye contact</b>	Dust may irritate the eyes.
<b>Ingestion</b>	May be harmful if swallowed.

**Symptoms** Dust may irritate throat and respiratory system and cause coughing. Direct contact with eyes may cause temporary irritation.

### 11.1. Information on toxicological effects

**Acute toxicity** Not expected to be acutely toxic.

Components	Species	Test results
Methanol (Impurity) (CAS 67-56-1)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	17100 mg/kg
<b>Inhalation</b>		
LC50	Rat	128200 mg/m <sup>3</sup> , 4 Hours
<b>Oral</b>		
LD50	Rat	1187 - 2769 mg/kg

**Skin corrosion/irritation** Based on available data, the classification criteria are not met. Dust may irritate skin.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met. Dust may irritate the eyes. Exposed individuals may experience eye tearing, redness, and discomfort.

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

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

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Polyvinyl alcohol, fully saponified (CAS 9002-89-5) 3 Not classifiable as to carcinogenicity to humans.

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

**Specific target organ toxicity - single exposure** Based on available data, the classification criteria are not met.

**Specific target organ toxicity - repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Due to the physical form of the product it is not an aspiration hazard.

**Mixture versus substance information** Not applicable.

**Other information** Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure.

## SECTION 12: Ecological information

**12.1. Toxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test results
Methanol (Impurity) (CAS 67-56-1)		
<b>Aquatic</b>		
Algae	EC50	Algae 22000 mg/l, 96 hours
Crustacea	EC50	Daphnia magna > 10000 mg/l, 48 hours
Fish	LC50	Lepomis macrochirus 15400 mg/l, 96 hours

<b>12.2. Persistence and degradability</b>	Expected to be inherently biodegradable.
<b>12.3. Bioaccumulative potential</b>	The product is not expected to bioaccumulate.
<b>Partition coefficient n-octanol/water (log Kow)</b>	No data available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	Not available.
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture.
<b>12.6. Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Residual waste</b>	Dispose of in accordance with local regulations.
<b>Contaminated packaging</b>	Dispose of in accordance with local regulations.
<b>EU waste code</b>	07 02 13 Waste codes should be assigned by the user based on the application for which the product was used.
<b>Disposal methods/information</b>	Dispose of in accordance with local regulations.

## SECTION 14: Transport information

### ADR

14.1. - 14.6.: Not regulated as dangerous goods.

### RID

14.1. - 14.6.: Not regulated as dangerous goods.

### ADN

14.1. - 14.6.: Not regulated as dangerous goods.

### IATA

14.1. - 14.6.: Not regulated as dangerous goods.

### IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**  
Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**  
Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**  
Not listed.

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended**  
Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Not listed.

#### **Other EU regulations**

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Not listed.

#### **Other regulations**

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 as amended.

#### **National regulations**

Follow national regulation for work with chemical agents.

#### **15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out.

### **SECTION 16: Other information**

#### **List of abbreviations**

DNEL: Derived No Effect Level.  
PNEC: Predicted No Effect Concentration.  
CLP: Regulation No. 1272/2008.  
TWA: Time weighted average.  
STEL: Short term exposure limit.  
LD50: Lethal Dose, 50%.  
LC50: Lethal Concentration, 50%.  
EC50: Effective Concentration, 50%.  
PBT: Persistent, bioaccumulative, toxic.  
vPvB: very Persistent, very Bioaccumulative.  
ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.  
ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road.  
IMDG Code: International Maritime Dangerous Goods Code.  
IATA: International Air Transport Association.  
MARPOL: International Convention for the Prevention of Pollution from Ships.

#### **References**

Not available.

#### **Information on evaluation method leading to the classification of mixture**

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

#### **Full text of any H-statements not written out in full under Sections 2 to 15**

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.

#### **Training information**

Follow training instructions when handling this material.

#### **Further information**

This safety data sheet contains revisions in the following section(s): 1

#### **Disclaimer**

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