

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:  Polyvinyl Alcohol

Manufacturer

Company Name: **JAPAN VAM & POVAL CO., LTD.**
Address: 11-1, Chikko Shinmachi 3-cho,
Nishi-ku,Sakai, Osaka, 592-8331,JAPAN
Telephone No. +81-72-245-1133
FAX No. +81-72-245-8144
e-mail sds@j-vp.co.jp

EMERGENCY TELEPHONE

JAPAN VAM & POVAL CO., LTD. (Sales & Marketing Dept.)
Telephone No. +81-72-245-1133 (FAX. +81-72-245-8144)
8:55am - 5:30pm (Japan Time)

2. HAZARDS IDENTIFICATION.

[GHS classification] It doesn't correspond to a standard for GHS classification.

May be harmful if inhaled and ingested.
May cause eye and skin irritation.
Dust explosion may be caused.

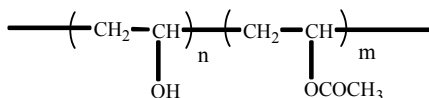
NFPA : HR= health-0, flame-2, react-0

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Description:

Polyvinyl Alcohol

Formula:



Composition / information on ingredients:

Polyvinyl Alcohol	over 94% purity
CAS Registry No.:	9002-89-5 (Fully Hydrolyzed) 25213-24-5 (Partially Hydrolyzed)
TSCA (USA):	On Inventory
EINECS (EU):	209-183-3 (Fully Hydrolyzed) 209-183-3, 203-545-4(Partially Hydrolyzed)
DSL (CANADA)	On Inventory
AICS (AUSTRALIA)	On Inventory
ECL (SOUTH KORIA)	KE-29060
IECSC (CHINA)	On Inventory

4. FIRST AID MEASURES

Inhalation:	No special measures are necessary. Remove to fresh air.
Eye Contact:	Immediately rinse eyes thoroughly, including under eyelids, with running water for at least 15 minutes.
Skin Contact:	Remove contaminated clothes and shoes, rinse skin with plenty of water.
Ingestion:	Emit by drinking water of room temperature. If poisoning occurs, contact a doctor or poisons information center.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flashpoint and Method:	above 70°C
Flammable Limits:	Not applicable
Auto Ignition Temperature:	440°C
Combustibility:	Low
Special Fire and Explosion Hazard	Dust form explosive mixture with air. (120mj / (35mg / m ³)

Extinguishing media: Water, Powder extinguisher, CO₂, Chemical foam

6. ACCIDENTAL RELEASE MEASURES

Land Spill:	Sweep up and collect for disposal, remove with a shovel or any suitable equipment. Collect in a convenient manner to avoid dusty conditions.
Water Spill:	When solution is abundant, it collects. It discharges, after carrying out activated sludge processing, when it mixes in waste water.

7. HANDLING AND STORAGE

- Handling:** Avoid contact with eyes, skin and clothing. Handle material with suitable protection.
- Storage:** Keep dry (Avoid moisture and high temperature)
Store away from sunlight in well ventilated dry place at room temperature.
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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measure: Installation of partial exhaust equipment is desirable.

Personal Protective Equipment:

- Respiratory protection: Respirator or Dust mask
Eye/Face protection: Safety Glasses (Goggles)
Skin Protection: Safety gloves and Protective clothing.
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9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance:** Powder or Granular
- Color:** White or Creamy
- Odor:** Mild
- Boiling Point :** Not applicable
- Melting Point :** Over 200°C
- Decomposition Point :** Over 200~250°C
- Vapor Pressure:** Not applicable
- Vapor Density:** Not applicable
- pH** 5~7 (at 4wt% water solution)
- Solubility in Water:** Soluble in hot water, slightly soluble in cold water.
Temperatures of 90~95°C are generally required for complete solution.
- Specific Gravity :** 1.19~1.31
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10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Avoid moisture and high temperature

Hazardous Decomposition Products: Hazardous gases produced are carbon monoxide from partial combustion

11. TOXICOLOGICAL INFORMATION

Polyvinyl Alcohol is safe and non-toxic material when properly handled. Feeding studies on laboratory animals have indicated a very low order of oral toxicity. Since all Polyvinyl Alcohol are made as technical quality, however, they are not recommended for inclusion in any food or other preparation which might be taken internally. Polyvinyl Alcohol is primarily not a skin irritant and does not produce skin contact sensitization.

Acute Toxicity Oral LD50 (rat) >2,000mg/kg
Dermal LD50 (rat) >2,000mg/kg
(IRI PROJECT No. 552896,552901 1992)

Chronic Exposure: Not available

NTP : Not listed

IARC : Not classifiable as to Carcinogenicity to Humans (Group 3)

OSHA : Not listed

ACGIH : Not listed

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Fish Toxicity:

LC50>1,000mg/L over 48hours of exposure, fully hydrolyzed Polyvinyl Alcohol (investigated in killifishes)

Inhabitation of activity of waste water/bacteria in acclimated domestic slug microorganisms:

In such situations, Polyvinyl Alcohol present does not inhibit the metabolism of existing activated slug microorganisms. Activated slug microorganisms can be acclimated to Polyvinyl Alcohol under conditions attainable in conventional waste water treatment systems.

Environmental fate:

Chemical Oxygen Demand: 60~100 (mg/kg) × 10⁴ (JIS K-0102)

Biological Elimination: Polyvinyl Alcohol has a negligible biochemical oxygen demand.

13. DISPOSAL CONSIDERATIONS

Comply with all national and local regulations.
Do not dump this material into sewers, on the ground or into any body of water.
In accordance with government regulations for the disposal of special waste.
Incinerate in an approved incinerator, according to government regulations.
Dispose of waste disposal contractor to a regulated landfill.

14. TRANSPORT INFORMATION

IATA : Not Restricted
DOT : Not a Hazardous Material for DOT shipping

15. REGULATORY INFORMATION

US Regulations ;
NTP Test. Prog.
EPA : CERCLA PQ=Not listed
: EPCRA TPQ=Not listed
OSHA : TQ=Not listed

EU Regulations ;
SYMBOL : -----
R-phrases : -----
S-phrases : -----
EC index No. : Not listed

16. OTHER INFORMATION

No specific notes

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