Date of issue: 2017/07/19
Date of revision: 2025/05/16

Safety Data Sheet

Section 1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: Polyvinyl alcohol 500

SDS No. : 6316E-4

Relevant identified uses of the substance or mixture and uses advised against

Research and Development

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN

Division: Chemical Safety Management Department

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

Section 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Reproductive toxicity: Category 1B

Specific target organ toxicity - single exposure: Category 2 (central nervous system, organ of vision, systemic toxicity)

Specific target organ toxicity - repeated exposure: Category 2 (central nervous system, organ of vision)

(Note) GHS classification without description: Not classified/Classification not possible

Label elements

Signal word: Danger

HAZARD STATEMENT

H360 May damage fertility or the unborn child

H371 May cause damage to organs (central nervous system, organ of vision, systemic toxicity)

H373 May cause damage to organs through prolonged or repeated exposure (central nervous system, organ of vision)

PRECAUTIONARY STATEMENT

Prevention

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash contaminated parts thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P270 Do not eat, drink or smoke when using this product.

Response

P314 Get medical advice/attention if you feel unwell.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor/physician.

Storage
P405 Store locked up.
Disposal
P501 Dispose of contents/container in accordance with local/national regulation.
Specific adverse human health effects
See "11. Toxicological Information".

Section 3. Composition/information on ingredients

Mixture/Substance selection:
Substance

Ingredient name	Content (%)	CAS No.	ENCS	Chemical formula
Polyvinyl alcohol	≧93	25213-24-5	6-682	(C4H6O2.C2H4O)n

Note : The figures shown above are not the specifications of the product.
Impurities
Methanol <3.0% (CAS No.67-56-1)
Methyl acetate <1.0% (CAS No.79-20-9)

Section 4. First-aid measures

Descriptions of first-aid measures
General measures
Get medical advice/attention if you feel unwell.
IF INHALED
Remove person to fresh air and keep comfortable for breathing.
IF INHALED: Call a POISON CENTER/doctor/physician if you feel unwell.
IF ON SKIN
Take off immediately all contaminated clothing. Rinse skin with water or shower.
If skin irritation or rash occurs: Get medical advice/attention.
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 advice/attention.
IF SWALLOWED
Rinse mouth.
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.

Section 5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media
Use appropriate extinguishing media suitable for surrounding facilities.
In case of fire, use water mist or loaded liquid, foam, inactive gases, dry powder, dry sand to extinguish.
*Fire Service Act Combustible solids or synthetic resins
Unsuitable extinguishing media
Extinguisher which discharge dry chemical fire extinguishing agents-Others (except for phosphates etc., hydrogen carbonates etc.)

*Ministerial Ordinance for Enforcement of the Fire Service Act (Appended Table 2)
Combustible solids or synthetic resins

Specific hazards arising from the substance or mixture
Fire may produce irritating, corrosive and/or toxic gases.
Runoff from fire control or dilution water may cause pollution.
See "10.Stability and Reactivity".

Advice for firefighters

Specific fire-fighting measures
Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters
Wear fire resistant or flame retardant clothing.
Wear protective gloves/protective clothing/eye protection/face protection.
Firefighters should wear self-contained breathing apparatus with a full facepiece operated in the positive pressure mode.

Section 6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures
Keep unauthorized personnel away.
Ventilate area until material pick up is complete.
Wear proper protective equipment.

Environmental precautions
Prevent spills from entering sewers, watercourses, low areas or rivers. To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for containment and cleaning up
Sweep up, place in a bag and hold for waste disposal.

Preventive measures for secondary accident
Collect spillage.

Section 7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)
Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Exhaust/ventilator)
Exhaust/ventilator should be available.

(Safety treatments)
Avoid contact with skin.
Avoid contact with eyes.

Safety Measures
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash hands et al thoroughly after handling.
When using do not eat, drink or smoke.

Any incompatibilities
See "10.Stability and Reactivity".

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

Storage

Conditions for safe storage

Keep container tightly closed.

Store locked up. (P405)

Store in a cool, dry place. Do not store in direct sunlight.

Storage in accordance with local/national regulation.

Container and packaging materials for safe handling

Use closed unbreakable containers.

Section 8. Exposure controls/personal protection

Control parameters

Administrative Control Levels and Concentration standard value

(Methanol)

Japan control value 200ppm

(Methyl acetate)

Japan control value 200ppm

Occupational Exposure Limit

The Japan Society for Occupational Health

(Methanol)

200ppm; 260mg/m3

(Methyl acetate)

200ppm; 610mg/m3

(Other inorganic and organic dust (third class dust))

JSOH Respirable dust 2mg/m3, Total dust 8mg/m3

ACGIH

(Methanol)

TWA: 200ppm; STEL: 250ppm (Headache; eye dam; dizziness; nausea)

(Methyl acetate)

TWA: 200ppm; STEL: 250ppm (Headache; dizziness; nausea; eye dam (degeneration of ganglion cells in the retina))

Notation

(Methanol)

Skin

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

Individual protection measures

Recommend to use protective equipment in conformity with the standards.

Use appropriate protective equipment in accordance with local/national regulation.

Respiratory protection

Wear respiratory protection (dust-proof mask/gas mask). Select chemical cartridge corresponding to type of gases when using a gas mask.

Hand protection

Wear impervious protective glove.

Eye protection

Wear eye/face protection. Wear safety goggles in cases gas is generated.

Skin and body protection

Wear protective clothing.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Powder or granular

Color: White to light yellow

Odor: Slightly characteristic odor

Melting point/Freezing point: 150～230℃

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Flammability (gases, liquids and solids) data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

pH data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Soluble

Solubility in solvent data is not available.

n-Octanol/water partition coefficient data is not available.

Vapor pressure data is not available.

Density and/or relative density data is not available.

Relative vapor density (Air=1) data is not available.

Particle characteristics data is not available.

Other information

Other information is not available.

Section 10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Not available.

Conditions to avoid

Contact with fire source.

Incompatible materials

Not available.

Hazardous decomposition products

Carbon oxides

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity
Acute toxicity (Oral)
[Data for components of the product]
[NITE-CHRIP]
(Methanol)
human LD50: ca. 1400 mg/kg (source: NITE)
(Methyl acetate)
rat LD50: 4800 mg/kg (source: NITE)
[Company proprietary data]
(Polyvinyl alcohol)
rat LD50>10,000 mg/kg
Acute toxicity (Dermal)
[Data for components of the product]
[NITE-CHRIP]
(Methanol)
rabbit LD50: 15800 mg/kg (source: NITE)
(Methyl acetate)
rat LD50: > 2000 mg/kg (source: NITE)
[Company proprietary data]
(Polyvinyl alcohol)
rabbit LD50>7,490 mg/kg
Acute toxicity (Inhalation)
[Data for components of the product]
[NITE-CHRIP]
(Methanol)
vapor: rat LC50: > 22500 ppm (converted 4-hour equivalent value: > 31500 ppm) (source: NITE)
Irritant properties
Skin corrosion/irritation data is not available.
Serious eye damage/irritation
[Data for components of the product]
[NITE-CHRIP]
(Methanol)
Category 2 (source: NITE)
(Methyl acetate)
Category 2B (source: NITE)
Allergenic and sensitizing effects data is not available.
Mutagenic effects data is not available.
Carcinogenic effects data is not available.
Reproductive toxicity
[Product]
Category 1B, May damage fertility or the unborn child
[Data for components of the product]
[NITE-CHRIP]
(Methanol)
Category 1B (source: NITE)
Specific target organ toxicity (STOT)
STOT-single exposure
[Product]
Category 2, May cause damage to organs
[Data for components of the product]

[NITE-CHRIP]
(Methanol)
Category 1 (central nervous system, organ of vision, systemic toxicity), Category 3 (Narcotic effects) (source: NITE)
(Methyl acetate)
Category 3 (Respiratory tract irritation), Category 3 (Narcotic effects) (source: NITE)

STOT-repeated exposure

[Product]
Category 2, May cause damage to organs through prolonged or repeated exposure

[Data for components of the product]
[NITE-CHRIP]
(Methanol)
Category 1 (central nervous system, organ of vision) (source: NITE)

Aspiration hazard data is not available.

Information on other hazards

May cause lung disorders by massive inhalation of powdered substance.
-e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

Section 12. Ecological Information

Toxicity

Aquatic toxicity

[Data for components of the product]
Hazardous to the aquatic environment, short-term (acute)
[NITE-CHRIP]
(Methanol)
Fish (Bluegill) 96-hour LC50: 15400 mg/L (source: NITE)
Crustacea (Brown shrimp) 96-hour LC50: 1340 mg/L (source: NITE)
(Methyl acetate)
Algae72-hour EC50: > 120 mg/L (source: NITE)

Water solubility

(Methanol)
not poorly water-soluble (1000000 mg/L) (source: NITE)
(Methyl acetate)
24.4 g/100 mL (20℃) (source: ICSC, 2014)

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

[Data for components of the product]
(Methanol)
log Pow: -0.74 (source: ICSC, 2018)
(Methyl acetate)
log Pow: 0.18 (source: ICSC, 2014)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

Section 13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

Dispose of contents/container as industrial waste. Accordance with local/national regulation.

Section 14. Transport Information

UN Number or ID Number : Not regulated

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : Not regulated

IATA (Dangerous Goods Regulations)

UN Number or ID Number : Not regulated

Environmental hazards

Marine pollutants (yes/no) : no

Section 15. Regulatory Information

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

U.S. Toxic Substances Control Act (TSCA) Inventory

Chemicals listed in TSCA Inventory

Methanol; Methyl acetate; Polyvinyl alcohol

Other regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

Section 16. Other information

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 23rd edit., 2023 UN
IMDG Code, 2024 Edition (Incorporating Amendment 42-24)
IATA Dangerous Goods Regulations (66th Edition) 2025
2024 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2025 TLVs and BEIs. (ACGIH)
JIS Z 7252 : 2019
JIS Z 7253 : 2019
2024 Recommendation on TLVs (JSOH)
Supplier's data/information

General Disclaimer

Please provide SDS to customers for selling or transferring.
All chemicals have unknown hazard. Handle the product with care.
This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.
The GHS classification data given here is based on current Data published in Japan (National Institute of Technology and Evaluation (NITE) Chemical Risk Information Platform (NITE-CHRIP), up to FY2023).