

Material Safety Data Sheet

Repackaged by
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Product Identification

**NOT CLASSIFIED AS HAZARDOUS
ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA**

Product Name	: Polyvinyl Alcohol
ALOSCA Product Code	: STICK1, STICK10
Manufacturer's Product Code	: GOHSENOH AH-17, AH-22, AH-26, A-300, AL-06, C-500, P-610, GL-03, GL-05, GL-05AF, GL-05B, GL-05S, GM-14, GM-14AF, GM-14B, GM-14L, GM-14R, GM-14S, GM-14LYS, GH-17, GH-17B, GH-17R, GH-17S, 300S, GH-17Y, GH-20, GH-20B, GH-20M, GH-20R, GH-20S, GH-22, GH-23
UN Number	: None Allocated
Hazchem Code	: None Allocated
Dangerous Goods	: None Allocated
Class Subsidiary Risk	: None Allocated
Poisons Schedule Number	: None Allocated
DG Class	: None Allocated

Use

Seed adhesive for use in the process of agricultural legume seed inoculation with nitrogen fixing bacteria prior to sowing.

Physical Description & Properties

Appearance	: White to slightly yellowish granule or powder
Odor	: None or slightly vinegary
Boiling Point	: Not relevant
Melting Point	: 150 - 230 ^{°C}
Flash Point	: More than 70 ^{°C}
Ignition Point	: 440 ^{°C}
Specific Heat	: 0.4cal/g/c
Explosive Properties	: None
Oxidizing Properties	: None
Bulk Density	: 0.3 – 0.7
Relative Density	: 1.19-1.31
pH	: pH value of 4 wt. % aqueous solution is 5-7 at 20 ^{°C}
Heat of Combustion	: 5.99 kcal/g
Explosion Limit	: Dust, 35g/m ³
Solubility	: Soluble - water.

Ingredients

Component	CAS No.	Exposure Guidance	wt%
Polyvinyl Alcohol (PVA, PVOH, PVAL)	25213-24-5	Japan Association of Industrial Health 2mg/m ³ (as organic dust)	94 min
Sodium Acetate	127-09-3	none	1.5 max
Methanol	67-56-1	ACGIH (TWA) 200 ppm	1.5 max
Methyl Acetate	79-20-9	ACGIH (TWA) 200 ppm	0.5 max
Water	7732-18-5	none	5 max

Health Hazard Information

Health Effects

Acute

- Swallowed** : Oral toxicity is believed to be low
- Eye** : Solid or dusts may cause irritation or corneal injury due to mechanical action
- Skin** : It is considered to be non-irritating to skin
- Inhale** : Single exposure to dust is not likely to be hazardous. When heated above 200^{°C}, fumes irritating the eyes, nose and throat may be involved. Symptoms may include tears in the eyes with itching, redness, burning pain in throat and nose.

First Aid Measures

- Swallowed** : Do not induce vomiting. Ingestion not considered to present a toxicological emergency. Give two (2) glasses of water to drink and consult a physician.
- Eye** : Immediately flush with running water for 15 minutes while holding eyelid.
- Skin** : Flush with soap and water.
- Inhale** : Move to fresh air. If irritation persists, get medical attention.

Toxicological Information

Irritancy : When powder of GOHSENOL was inserted into the eyes of rabbits, no abnormality was observed in case of a 'partially saponified grade', but slight irritation to rabbit eyes was recognized in case of a 'fully saponified grade', but no abnormality was confirmed for a 'fully saponified grade'.

Acute toxicity: oral; rat, LD₅₀ = more than 2,000 mg/kg
skin; rat, LD₅₀ = more than 2,000 mg/kg
In both toxicity tests, neither abnormality nor death was observed in rats.

Subacute Toxicity:
When 1 ml of wt.% of aqueous polyvinyl alcohol solution containing 0.9 wt.% of salt was administered subcutaneously to rats every day consecutively for 25 days, hyperpiesia and hypertrophies in kidney, liver and heart were observed.

Carcinogenicity :
As far as past tests performed on rats are concerned, any carcinogenicity has never been observed.

Mutagenicity : (microorganism, chromosomal aberration) Mutation was observed neither in hamster chromosome test nor in mouse microcellnucleus test. Mutagenicity test performed with bacteria was negative.

Polyvinyl alcohol has been listed in the Japanese Pharmaceutical Excipients (JPE) (notifications of the director of the Pharmaceutical & Supply Bureau of the Ministry of Health & Welfare) and in the Japanese Standards of Cosmetic Ingredients (JPE) (notification of the Ministry of Health & Welfare).

Analytical items	Results	Detect. Limit	Analytical methods
Pb	No detection	0.05 ppm	Atomic-absorption spectroscopy
Cd	"	0.01 ppm	"
T-Hg	"	"	"
Cu	"	0.05 ppm	"
Zn	"	"	"
Mn	"	"	"
Ni	"	"	"
T-Cr	"	0.5 ppm	Diphenylcarbazide absorptiometry

Test organization: Japan Food Research Laboratories (April 7, 1994, No. OS57031168-001)

Ecological Information

Degradability: Biodegradability due to the sludge containing Pseudomonas was confirmed.

Accumulation: Polyvinyl Alcohol has been classified into the group of substances which are not or hardly concentrated.

Toxicity to aquatic animals : LC₅₀=more than 1,000 mg/ltr (fully saponified type, 48hr).

Precautions for Use

Precautions for handling

As polyvinyl alcohol contains fine powder and is dusty, it is recommended to wear rubber gloves, dust protective mask and dusk protective goggles during handling in order to avoid inhalation of dust and contact of dust with eyes and skin.

In case of handling a lot of polyvinyl alcohol, install dust collectors. It is essentially important to surely earth all equipment and piping and use dust collection filters made from conductive materials to avoid dust explosion due to electric sparks.

Safe Handling Information

Storage

As polyvinyl alcohol dissolves in water, store in in a place where it never gets wet with rain or water. Avoid storage in any high temperature and/or high humidity to avoid blocking due to moisture absorption.

Measures for Leakage

- Powder** : Recover the spilt material by sweeping up. When the recovered material can not be reused, incinerate it as in the case of common wastes. Be careful as it becomes pasty and slippery when wet.
- Aqueous solution** : Where possible recover the leaked solution. If it has leaked into the common waste, discharge after activated sludge treatment.

Disposal Considerations

Follow all relevant regulations for disposal in your country.

- Granule or powder** : Burn in an incinerator.
- Aqueous solution** : Treat with activated sludge containing *Pseudomonas* sp.

Fire Fighting Measures

- Extinguishing procedures:** Extinguish the fire with water or dry chemical as in conventional fires.
- Extinguishing media :** Water, dry chemical or carbon dioxide.

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.