



Reagent Nihon Kasettsu PW 1

Coagulant-flocculant for the clarification of wastewater



Clean



Safe



Easy

- **100% natural**
Non pollutant. Made of mollusks shells, seaweeds and minerals. Harmless for human beings, animals and plants.
- **One single compound, powdered**
Easy to handle and dose. High efficiency. Integrates coagulation and flocculation processes.
- **High-quality resulting sludge**
Tighter. Easy to dewater. Non pollutant.
- **Treats any kind of water**
Low sensitiveness to pH, temperature, turbidity, salinity...
- **Versatile**
Offers its highest efficiency when used in NIHON KASETSU's machine, but can be used with superb results in any other clarification process available in the market.



Available in 25 Kg plastic bags and in 5 Kg cans.



There are many different types of coagulants and flocculants used for water treatment. The conventional aluminum-based polymers have some significant drawbacks: e.g. they are environmental pollutants, a large amount of product is required, they are toxic, difficult to handle and can cause diseases such as cancer and Alzheimer's disease.

NIHON KASETSU has developed a **highly effective** reagent **based on natural, non-polluting substances** whose raw materials are mollusk shells, seaweed and minerals. The reagent is high-performing, safe and very easy to handle. It can treat any type of wastewater and can be used in both fresh and salt water. Moreover, it contains no substances harmful to the environment.

Advantages over conventional reagents

Parameter	Nihon Kasetzu PW1	Conventional reagents (PAC + Polymer)	Remarks
pH control and adjustment	Not necessary	Very sensitive to pH	PAC is very acid (typical pH 3 to 4)
Sludge disposal	Easy disposal or recycling	Difficult to recycle	PW1 sludge can be used as fertilizer
Sludge thickness	Very dry and thigh	Very viscous	Dewatering difficult if high viscosity
Dosing	Very easy (only one compound)	Difficult (two different compounds)	PAC dosing not easy, requiring specific premixing systems
If overdosing	Not a problem	Water turns white	Water may be contaminated by PAC and polymers
Handling	Safe and easy	Difficult	Some PAC and polymers contain harmful substances
Environmental impact	Eco-friendly	Significant impact on environment	PW1 made of 100% natural non harmful ingredients

Composition

Substance	%	Raw materials	CAS/CE number
Calcium sulfate (CaSO ₄)	38,90	Gypsum	7778-18-9; 231-900-3
Calcium carbonate (CaCO ₃)	16,60	Marble and gypsum	471-34-1; 207-439-9
Silicon dioxide (SiO ₂)	16,00	Mollusc shells Seaweeds Fly ash	112926-00-8
Aluminium oxide (Al ₂ O ₃)	8,95		1344-28-1; 215-691-6
Iron (III) oxide (Fe ₂ O ₃)	1,67		1309-37-1; 215-168-2
Magnesium oxide (MgO)	2,64		215-171-9
Potassium hydrogen carbonate (KHCO ₃)	0,70		298-14-6; 206-059-0
Titanium dioxide (TiO ₂)	0,65		13463-67-7; 236-675-5
Manganese oxide (MnO)	0,03		11129-60-5; 234-378-5
Sodium hydrogen carbonate (NaHCO ₃)	0,65	Bicarbonate	144-55-8; 205-633-8
Carbohydrates (C ₆ H ₁₀ O ₅) _n	9,83	Starch	
Water (H ₂ O)	2,10	Water	7732-18-5

Applicable regulations: Regulation (EC) 1272/2008 (CLP), December 16, 2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) 1907/2006 (REACH), December 18, 2006 concerning the registration, evaluation, authorisation and restriction of chemicals, updated in accordance with the Regulations (EU) 453/2010 of the Commission May 20, 2010; (EU) 2015/830, May 28, 2015 modifying (EC) 1906/2006.

Western markets:

NIHON KASETSU EUROPE

M^a Zambrano 31,

WTC, Torre Oeste, Planta 15. 50018 Zaragoza (Spain)

T. (+34) 976 011 423

M. (+34) 650 554 749

Headquarters:

NIHON KASETSU CO.

16-14-6-50, Hassamu, Nishi-ku.

Sapporo, 063-0829 Hokkaido, (Japan)