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## Modified Sodium Disilicate (MDS)



### New Phosphorous-free Detergent Auxiliary

**Modified sodium disilicate**, with molecular formula of  $\text{Na}_2\text{O}_2\text{SiO}_2$  and commercial designation of MDS, is manufactured through special process of adding active auxiliaries into sodium silicate. The pH value is within 10.5 – 12.5, Bulk density within 0.3—0.70g/cm<sup>3</sup>. As a phosphorous-free detergent auxiliary, the modified sodium disilicate (MDS) satisfies all technical and ecological requirements for substitute of STPP.

#### Characteristics:

MDS has got very good binding and exchange capacity with calcium ion and magnesium ion, therefore performs very well in water softening. What is else, it requires lower washing temperature.

It has got better solubility in water than 4A zeolite.

It has very good pH buffering effect. Comparing with STPP or 4A zeolite MDS has stronger buffering effect and thus better maintains the alkalinity for second time washing.

It is available to various detergents and suitable to all kinds of detergent processes. It can be used either as an ingredient for washing powders by tower process or as an ingredient for concentrated washing powder. It also serves as a basic raw material for paste and liquid detergents.

It has stronger oil removing ability. MDS has higher active alkalinity and therefore it can remove oil dirt independently. Its oil absorption capability comes up to 70%. With no existence of any other kinds of surfactants and/or cleaning auxiliaries, the oil removing capacity of its 5% water solution reaches 70%.

It has very good synergistic effect with surfactants. MDS synergies very well with anionic surfactants and cationic surfactants.

It has very good emulsifying effect on oil dirt deposits. MDS can decompose, suspend and disperse dirt particles and minimize their deposition on fabrics. It is not corrosive and does no damage to fabrics.

It has proper bulk density. Its bulk density is between 0.3 -0.70g/cm<sup>3</sup>, and per user's requirements.

It has very good compatibility with other functional aids such as bleaching agents.

It is an ecologically friendly product. It has no toxicity to humanbeing, animals and aquatic creatures. It causes no eutrophication problem and brings no pollution to environment when getting into soils, rivers and oceans.

### Performance Indexes and Product Standards:

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##### Type One

Item	Standard of quality
Appearance	White powder or granule
Calcium ion exchange capacity (CaCO <sub>3</sub> ) mg/g	≥420
Content of SiO <sub>2</sub> %+ Na <sub>2</sub> O%	≥60
Whiteness %	≥90
Bulk density (g/cm <sup>3</sup> )	Big Granule 0.38-0.45
	Fine Granule 0.48-0.55
	Powder 0.6-0.8
PH	≤12.5
Water insolubles, %	≤1.5
Water, %	≤4

The product is packed in 25kg plastic woven bag lined with plastic film inner bag. It should be kept away from rain, moisture and direct sunlight during storage and transportation.

##### Type Two

### Related Products

[Modified Sodium Disilicate \(MDS\)](#)

### Featured Products

[Choline Chloride](#)

[Zinc Bacitracin](#)

[Menadione \(Vitamin K3\)](#)

[Modified Sodium Disilicate \(MDS\)](#)

[Complex Sodium Disilicate](#)



Item	Standard of quality
Appearance	White powder or granule
Calcium ion exchange capacity (CaCO <sub>3</sub> ) mg/g	≥360
Content of SiO <sub>2</sub> %+ Na <sub>2</sub> O%	≥50
Whiteness %	≥90
Bulk density (g/cm <sup>3</sup> )	Big Granule 0.38-0.45
	Fine Granule 0.48-0.55
	Powder 0.6-0.8
PH	≤12.5
Water insolubles, %	≤1.5
Water, %	≤4

#### Type Three

Item	Standard of quality
Appearance	White powder or granule
Calcium ion exchange capacity (CaCO <sub>3</sub> ) mg/g	≥320
Content of SiO <sub>2</sub> %+ Na <sub>2</sub> O%	≥45
Whiteness %	≥90
Bulk density (g/cm <sup>3</sup> )	Big Granule 0.38-0.45
	Fine Granule 0.48-0.55
	Powder 0.6-0.8
PH	≤12.5
Water insolubles, %	≤1.5
Water, %	≤4

#### Applications

(1) Detergent auxiliary for washing powder: Instead of STPP, MDS can be used to pre-proportioning for spray drying or post-proportioning for producing low-density phosphorous-free washing powder, and also can be used as base powder for producing concentrated phosphorous-free or low-phosphorous washing powder by agglomeration method. The product has good detergency ability and can be used together with 4A zeolit as binary auxiliary for producing high/low density phosphorous-free washing powder.

(2) Detergent auxiliary for soap: Instead of STPP, MDS may chelate calcium ions and magnesium ions in water quickly and thoroughly, consequently improving detergency ability of products. Moreover, it also has favorable anti- re-deposition performance.

(3) Detergent auxiliary for textile dyeing and printing: it can be used as chelating agent for pretreatment agent as oil remover and scouring agent etc, and also can be used as favorable hydrogen peroxide bleaching stabilizer.

(4) Detergent auxiliary for industrial cleaning agent: MDS can be used as basic material for industrial cleaning agent such as metal cleaning agent, heavy oil dirt cleaning agent and petroleum pipeline dredging and cleaning agent etc.

#### Packing, Storage & Transportation

The product is packed in 25kg plastic woven bag lined with plastic film inner bag. It shall be kept away from rain, moisture and direct sunlight during storage and transportation.

#### Inquiry

Name:  \*

Email:  \*

Tel:

Message:  \*

Submit

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