

## Ammonium persulfate $[(NH_4)_2S_2O_8]$

Molecular formula:  $(NH_4)_2S_2O_8$

Molecular weight: 228.201

Synonyms: Ammonium Peroxydisulfate

**CAS #:** 7727-54-0

### Summary of performance

Ammonium persulfate is a white, crystalline, odorless salt. It is used as initiator for the polymerization of monomers and as a strong oxidizing agent in many applications. It has the particular advantage of being almost non-hygroscopic, of having a particularly good storage stability as a result of its extremely high purity and of being easy and safe to handle.

### Transportation

Road/rail transport: GGVS, GGVE, ADR, RID: CLASS 5 . 1

Sea transportationGGV Sea / IMDG code: CLASS 5.1, Page 5185,  
UN NO.1444; **Packing type:** III; **Mark:** 5.1(corrosion)

Water hazard rating: 1

### Packing

net weight 25kg woven bag

### Storage

- Store in a cool, well-ventilated area away from all source of ignition and out of direct sunlight. Store in a dry location away from heat. Store at temperature less than 30 o C.
- Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers
- Protect from moisture. Do not store near combustible materials. Keep containers well sealed, seal only with original vent cap. Ensure pressure relief and adequate ventilation.

Shandong Zhonglu Products Co., Ltd.

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Add.: Huafu International Commercial Plaza, Licheng District, Jinan, Shandong, CHINA



## Persulfate product specification

- Store separately from organics and reducing materials. Avoid contamination which may lead to decomposition.

### Application

Ammonium Persulfate is a suitable initiator for emulsion or solution polymerization of acrylic monomers, vinyl acetate, vinyl chloride etc. and for emulsion copolymerization of styrene, acrylonitrile, butadiene etc. It is also a kind of oxidizing agent, used in cleaning and pickling of metal surface, accelerated curing of low formaldehyde adhesives and modification of starch, production of binders and coating materials, also can be used as desizing agent and bleach activator. It is an essential component of bleaching formulations for hair cosmetics.

### Technical data:

ITEM (%)	SPECIFICATION		
	High performance	Grade One	Qualified
appearance	white crystal powder		
ASSAY [(NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>8</sub> ] ω/ % ≥	98.5	98.3	98.0
Fe ω/ % ≤	0.0005	0.0008	0.001
Mn ω/ % ≤	0.0001	0.00015	0.0002
chloride(CL) ω/ % ≤	0.001	0.002	0.002
MOISTURE ω/ % ≤	0.15	0.20	0.25
heavy metal (Pb) ω/ % ≤	0.0010	0.0015	0.0020
PH(50g/L solution) ω/ %	3.0~5.0	3.0~5.0	3.0~5.0

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## Potassium persulfate $[K_2S_2O_8]$

Molecular formula:  $K_2S_2O_8$

Molecular weight: 270.31

Synonyms: Potassium peroxydisulfate; Potassium peroxodisulfate; dipotassium peroxodisulphate; Potassium persulphate;

**CAS #:** 7727-21-1

### Summary of performance

Potassium persulfate is a white, crystalline, odorless salt. It is used as initiator for the polymerization of monomers and as a strong oxidizing agent in many applications. It has the particular advantage of being almost non-hygroscopic, of having a particularly good storage stability as a result of its extremely high purity and of being easy and safe to handle.

### Transportation

Road/rail transport: GGVS, GGVE, ADR, RID: CLASS 5 . 1

Sea transportationGGV Sea / IMDG code: CLASS 5.1, Page 5185,  
UN NO. 1492; **Packing type:** III; **Mark:** 5.1(corrosion)

Water hazard rating: 1

### Packing

net weight 25kg woven bag

### Storage

- Store in a cool, well-ventilated area away from all source of ignition and out of direct sunlight. Store in a dry location away from heat. Store at temperature less than 30 o C.
- Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers
- Protect from moisture. Do not store near combustible materials. Keep containers well sealed, seal only with original vent cap. Ensure pressure relief and adequate ventilation.

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## Persulfate product specification

- Store separately from organics and reducing materials. Avoid contamination which may lead to decomposition.

### Application

Potassium Persulfate is a suitable initiator for emulsion or solution polymerization of acrylic monomers, vinyl acetate, vinyl chloride etc. and for emulsion copolymerization of styrene, acrylonitrile, butadiene etc. It is also a kind of oxidizing agent, used in cleaning and pickling of metal surface, accelerated curing of low formaldehyde adhesives and modification of starch, production of binders and coating materials, also can be used as desizing agent and bleach activator. It is an essential component of bleaching formulations for hair cosmetics.

### Technical data:

ITEM (%)	SPECIFICATION		
	High performance	Grade One	Qualified
appearance	white crystal powder		
ASSAY [ $K_2S_2O_8$ ] $\omega/\%$ $\geq$	99.0	98.5	98.0
Fe $\omega/\%$ $\leq$	0.001	0.002	0.003
Mn $\omega/\%$ $\leq$	0.0001	0.0002	0.0003
chloride(CL) $\omega/\%$ $\leq$	0.02	0.02	0.03
AMMONIUM SALT [ $NH_4$ ] $\omega/\%$ $\leq$	0.20	0.30	0.50
MOISTURE $\omega/\%$ $\leq$	0.10	0.15	0.20
heavy metal (Pb) $\omega/\%$ $\leq$	0.0010	0.0015	0.0020
PH(50g/L solution) $\omega/\%$	4.0~6.0	4.0~6.0	4.0~6.0

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## Sodium persulfate $[(Na)_2S_2O_8]$

Molecular formula:  $Na_2S_2O_8$

Molecular weight: 238.13

Synonyms: disodium peroxodisulfate; Peroxydisulfuric acid, disodium salt;

**CAS #:** 7775-27-1

### Summary of performance

Sodium persulfate is a white tasteless crystal, or powder, broken down by ethanol, stable at room temperature. It is often used as a strong oxidant and also as a monomer polymerization initiator. It absorbs little moisture, is easy to store, easy to use, and safe.

### Transportation

Road/rail transport: GGVS, GGVE, ADR, RID: CLASS 5 . 1

Sea transportation GGV Sea / IMDG code: CLASS 5.1, Page 5185,

UN NO.1505; **Packing type:** III; **Mark:** 5.1(corrosion)

Water hazard rating: 1

### Packing

net weight 25kg woven bag

### Storage

Sodium persulfate is a non-flammable, but it can release oxygen and play a role of combustion promoter. During storage, it must be stored in a dry, airtight container to avoid direct sunlight and near heat source. Do not contact with reduced substances such as organic matter and rust, a small amount of metal, in order to cause Sodium persulfate decomposition, explosion. Because damp Sodium persulfate and its aqueous solution have bleached and slightly corrosive effects, avoid direct contact with eyes, skin, and clothing during use.

### Application

Environmental remediation agents: contaminated soil remediation, water treatment (wastewater purification); Waste gas treatment, oxidative degradation of harmful substances (e.g. mercury).

Polymerization: the initiator of latex or acrylic monomer polymerization solution, vinyl acetate, vinyl chloride and other products, but also styrene, acrylonitrile,

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## Persulfate product specification

butadiene and other colloidal copolymerization initiator.

Metal treatment: cleaning and pickling of metal surfaces (e.g., in semiconductor manufacturing: cleaning and etching of printed circuits). Activation of copper and aluminum surfaces.

Used to speed up the processing of low concentration formalin adhesive.

A modifier used in the production of starch and used as a desorption agent in the production of adhesives and coatings

Cosmetics: essential ingredient in bleaching formulations.

Textiles: Depulsing agents and bleaches - especially for low temperature bleaching.

Hair dye: It is one of the basic components of hair dye and plays a decolorizing role.

Others: chemical synthesis; Disinfectant; Water treatment, purification and disinfection; Waste gas treatment; Oxidative degradation of hazardous substances (e.g. mercury); Paper (low temperature bleaching especially in pulping); Water-reducing agent for mixing suspected soil; In petroleum exploitation, used for fracturing fluid of oil well broken glue agent.

### Technical data:

ITEM (%)	SPECIFICATION		
	High performance	Grade One	Qualified
appearance	white crystal powder		
ASSAY [Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub> ] ω/ % ≥	99.0	98.5	98.0
Fe ω/ % ≤	0.001	0.002	0.003
Mn ω/ % ≤	0.0001	0.0002	0.0003
chloride(CL) ω/ % ≤	0.005	0.010	0.015
AMMONIUM SALT [NH <sub>4</sub> ] ω/ % ≤	0.20	0.20	0.20
MOISTURE ω/ % ≤	0.10	0.10	0.15
heavy metal (Pb) ) ω/ % ≤	0.0010	0.0015	0.0020
PH(50g/L solution) ω/ %	3.5~5.5	3.5~5.5	3.5~5.5

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