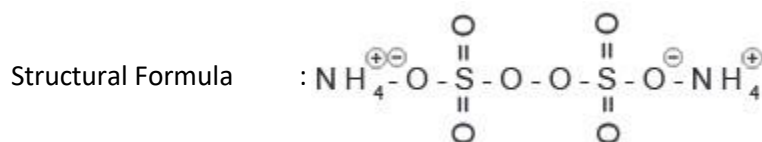


# Technical Data Sheet (TDS)

## APS

**Ammonium peroxodisulfate (Ammonium Persulfate) / APS**  
**CAS#7727-54-0**  
**Technically Pure, Solid**

Molecular Formula :  $(\text{NH}_4)_2\text{S}_2\text{O}_8$  Molecular Weight : 228.19



Description : Ammonium Persulfate is a white, crystalline, odourless salt with a density of 1.98 consisting of technically pure ammonium peroxodisulfate. It is used as an initiator (source of free radicals) for the polymerisation of monomers and as a strong oxidizing agent in many applications. It can be stored for a long time when it is completely dried. However, it decomposes gradually after absorbing moisture and releases oxygen and ozone. It dissolves in water and decomposes when heated. It can be used as chemical reagent, oxidant, bleaching agent, deodorizer and initiator of monomer polymerization. It has the particular advantage of having a good storage stability as a result of its extremely high purity and of being easy and safe to handle.

Technical Data :

Sr. No.	Test	Specification
1	Appearance	White crystalline solid
2	Assay	99.9 % min.
3	Acidity (as $\text{H}_2\text{SO}_4$ )	0.05% w/w
4	Bulk density (20°C)	1100 kg/m <sup>3</sup>
5	Solubility in water at 20°C	620 g/L
6	pH (10% solution in water)	3.5
7	Active Oxygen	7.0% w/w
8	Iron (Fe)	NMT 0.002% w/w
9	Moisture	0.03 % w/w
10	Decomposition temperature	130 °C
11	Recommended storage temperature	< 30 °C
12	Storage stability as from date of delivery	12 months

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Applications	<p>: Widely used in storage battery industry. Used to produce persulfates and refine of Ammonia Sulfate.</p> <p><u>Polymerization</u>: Initiator for the emulsion or solution polymerization of acrylic monomers, vinyl acetate, vinyl chloride etc. and for the emulsion copolymerization of styrene, acrylonitrile, butadiene etc.</p> <p><u>Metal treatment</u>: Treatment of metal surfaces (e.g. in the manufacture of semiconductors; cleaning and etching of printed circuits), activation of copper and aluminium surfaces.</p> <p>Used in decoloring and bleaching of oil, cleaning and deodorization of deteriorated barm, as ripener of wheat.</p> <p>Used as additive of under-well fracturing in petroleum exploitation.</p> <p>Used in developer and fixer of film, widely used in the treatment of waste fluid.</p> <p><u>Cosmetics</u>: Essential component of bleaching formulations.</p> <p><u>Textile</u>: Desizing agent and bleach activator - particularly for cold bleaching.</p> <p><u>Others</u>: Chemical synthesis; Water treatment (decontamination); Waste gas treatment, oxidative degradation of harmful substances (e.g. Hg); Disinfectant; Paper (modification of starch, repulping particularly for cold bleaching).</p>
Packing	: 25 kgs and 50 kgs net polyethylene and polypropylene bags.
Storage	<p>: It must be stored in well closed original packing and protected from direct sunlight, heat and humidity. Impurities such as dirt, rust or traces of metal and reductants may cause catalytic decomposition.</p> <p>Keep dry and within safe temperature limits.</p>
Safety & precautions	: Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists or dust.