

| Chemical Name CAS-Number | Colour/Form | Boiling Point (°C) | Melting Point (°C) | Molecular Weight | Solubility in Water | Relative Density (water=1) | Relative Vapour Density (air=1) | Vapour Pressure/ (Kpa) | Inflam. Limits | Flash Point (°C) | Auto Ignition Point (°C) |
|---------------------------------------|--|-----------------------|-----------------------|---------------------|--|------------------------------------|--|------------------------------|-------------------|---------------------|--------------------------------|
| AMMONIUM PERSULPHATE 7727-54-0 | white crystals | | 120 decomp | 228.19 | v sol | 1.98 | | | | | |
| AMMONIUM SULPHAMATE 7773-06-0 | crystals (large plates); colourless, white crystalline substance; brownish-gray; bright yellow-orange crystalline solid | | 131 | 114.13 | 166.6 g/100 m l @ 10 °C; 2.16 kg/ kg @ 25 °C | >1 (solid) | | | | | |
| AMMONIUM SULPHATE 7783-20-2 | colourless rhombic crystals; orthorhombic crystals or white granules; brownish gray to white crystals according to degree of purity | | | 132.14 | sol | 1.769 @ 50 °C | | | | | |
| AMMONIUM SULPHIDE 12124-99-1 | yellow crystals | | decomp | 68.14 | v sol | | | | | | |
| CALCIUM SULPHATE 7778-18-9 | natural anhydrite crystals are colourless, rhombic or monoclinic; natural anhydrite crystals are orthorhombic, colour varies (white with blue, gray or reddish tinge, or brick red); insol anhydrite has same crystal structure as mineral anhydrite | 1193 | 1450 | 136.14 | sl sol | 2.960 | | | | | |
| CALCIUM SULPHIDE 1344-81-6 | deep orange malodorous liquid | | | | | 1.28 @ 15.6 °C | | | | | |
| CARBON DISULPHIDE 75-15-0 | mobil liquid; clear, colourless or faintly yellow liquid | 46.5 | -111.5 | 76.14 | 0.2 g/100 ml | 1.2632 | 2.67 | 48 @ 25 °C | 1.3 ll 50 ul | -30 cc | 90 |
| CARBONYL SULPHIDE 463-58-1 | colourless gas | -30 | -138 | 60.08 | 1220 mg/l at 25 °C | 1.028 @ 17 °C/4 °C | 2.1 | 9412 mm Hg at 25 °C | 12% ll 29% ul | | |
| HYDROGEN SULPHIDE 7783-06-4 | colourless gas | -60.33 | -85.49 | 34.08 | 1 g /242 ml | 1.5392 g/l @ 0 °C;1.19 (gas) | 1.189 | 1 atm @ -60.4 °C | 4.3 ll 45 ul | | 260 |
| POTASSIUM PERSULPHATE 7727-21-1 | colourless, triclinic crystal; white crystal | | | 270.3 | 1.75g/100 cc @ 0 °C; 5.2 g/100 cc @ 20 °C | 2.47 | | | | | |
| POTASSIUM | white crystals or crystalline | | 190 | 222.32 | v sol | 2.34 | | | | | |

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| PYROSULPHITE 16731-55-8 | powder; colourless, monoclinic plates | | decomp | | | | | | | | |
| POTASSIUM SULPHIDE 1312-73-8 | white cubic crystals or fused plates; red or yellow-red crystalline mass or fused solid | | 912 | 110.26 | v sol | 1.805 @ 14 °C | | | | | |
| SODIUM BISULPHITE 7631-90-5 | white crystal or crystalline powder; granular powder; white, monoclinic | | | 104.07 | 3.5 parts in cold, 2 parts in boiling | 1.48 | | | | | |
| SODIUM HYDROSULPHITE 7775-14-6 | white or grayish-white crystalline powder | | | 176.10 | | | | | | | |
| SODIUM METABISULPHITE 7681-57-4 | white crystals or white to yellowish crystalline powder | | 150 decomp | 190.13 | 54 g/100 cc; 81.7 g/100 cc @ 100 °C | 1.4 | | | | | |
| SODIUM SULPHATE 7757-82-6 | white powder or orthorhombic bipyramidal crystals; monoclinic crystals from 160-185 °C | | 888 | 142.06 | sol in about 3.6 parts | 2.671 | | | | | |
| SODIUM SULPHIDE 1313-82-2 | clear crystals; yellow or brick-red lumps or flakes; cubic crystals or granules; amorphous, yellow-pink or white crystals | | 1180 | 78.05 | 18.6 g/100 g | 1.856 @ 14 °C/4 °C | | | | | |
| SODIUM SULPHITE 7757-83-7 | small crystals or powder; white powder or hexagonal prism | | | 128.06 | sol in 3.2 parts | 2.633 @ 15.4 °C | | | | | |
| SODIUM THIOSULPHATE 7772-98-7 | powder; colourless monoclinic crystals | | | 158.13 | 50 g/100 ml | 1.667 | | | | | |
| SULPHUR BROMIDE 13172-31-1 | yellow liquid | 54 | - 40 | 223.93 | decomposes | 2.63 | | | | | |
| SULPHUR DIOXIDE 7446-09-5 | colourless liquid or gas | -10 | -72.7 | 64.07 | 8.5% @ 25 °C | 2.927 g/l (gas); 1.434 (liquid) | 2.2 | 330 | | | |
| SULPHUR TETRAFLUORIDE 7783-60-0 | gas | - 40 | - 124 | 108.05 | decomposes | | | | | | |
| SULPHUR TRIOXIDE 7446-11-9 | alpha-form, asbestos-like needles; beta-form, asbestos-like needles; gamma-form, ice-like mass or liquid | | | 80.07 | sol in 100 parts | | | 73 mm Hg @ 25 °C | | | |
| SULPHUR 7704-34-9 | orthorhombic, cycloocta or alpha-sulphur, amber coloured crystals; monoclinic, cycloocta or beta-sulphur, light-yellow, opaque, brittle, needle-like crystals; sublimed & washed sulphur are in form of fine, yellow | 444.6 | 112-120 | 32.06 | insol | 2.1 | 0.00005 lb/cu ft @ 32 °C | 3.96x 10 ⁶ mm Hg @ 30.4 °C | 35 mg/l ll 1400 ul | 207 | 232 |

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| | crystalline powder | | | | | | | | | | |
| SULPHURYL CHLORIDE 7791-25-5 | colourless, mobile liquid | 69.3 | -54.1 | 134.98 | | 1.6674 | 4.7 | 100 mm Hg @17.8 °C | | | |
| THIONYL CHLORIDE 7719-09-7 | colourless to pale yellow or reddish liquid; colourless to pale yellow, fuming, refractive liquid | 76 | -104.5 | 118.98 | | 1.638 | 4.1 | 110 mm Hg @ 26 °C | | | |