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# THE MERCK INDEX

AN ENCYCLOPEDIA OF  
CHEMICALS, DRUGS, AND BIOLOGICALS

FOURTEENTH EDITION

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**Caution:** Prevent swallowing of soln.

**USE:** Bleaching straw and other fibers, ivory, sponges, bristles, waxes, textiles; in laundering, dentifrices, soaps.

**THERAP CAT:** Antiseptic (topical).

**THERAP CAT (VET):** Mouthwash.

**8653. Sodium Perchlorate.** [7601-89-0] Irenat.  $\text{ClNaO}_4$ ; mol wt 122.44. Cl 28.96%, Na 18.78%, O 52.27%.  $\text{NaClO}_4$ .

**Monohydrate.** White, deliquescent crystals. Dec  $\sim 130^\circ$ . d 2.02. Very sol in water. *Keep well closed.*

**USE:** In the explosives industry.

**THERAP CAT:** Thyroid inhibitor.

**8654. Sodium Permanganate.** [10101-50-5]  $\text{MnNaO}_4$ ; mol wt 141.93. Mn 38.71%, Na 16.20%, O 45.09%.  $\text{NaMnO}_4$ .

**Trihydrate.** Reddish-black, very hygroscopic granules. Very sol in water; dec by alcohol.

**8655. Sodium Peroxide.** [1313-60-6] Sodium dioxide; sodium superoxide; Solozone.  $\text{Na}_2\text{O}_2$ ; mol wt 77.98. Na 58.96%, O 41.03%. The product of commerce contains 90-95%  $\text{Na}_2\text{O}_2$ . Prep'd by heating sodium metal to  $300^\circ$  in aluminum vessels with a current of air from which carbon dioxide has been removed. Prep'n of the octahydrate: Penneman, *Inorg. Synth.* **3**, 1 (1950).

Yellowish-white, granular powder. Absorbs water and  $\text{CO}_2$  from the air. Freely sol in water, forming sodium hydroxide and hydrogen peroxide, the latter quickly dec into oxygen and water. With dil acids  $\text{H}_2\text{O}_2$  is formed which remains stable. In contact with organic matter or readily oxidizable substances ignition and explosion may take place. *Keep tightly closed and protected from contact with organic or oxidizable substances.*

**Caution:** Irritant and corrosive. See Sodium Hydroxide.

**USE:** Bleaching animal and vegetable fibers, feathers, bones, ivory, wood, wax, sponges, coral; rendering air charged with  $\text{CO}_2$  respirable as in torpedo boats, submarines, diving bells, etc.; purifying air in sick rooms; dyeing and printing textiles; chemical analysis. General oxidizing agent.

**8656. Sodium Persulfate.** [7775-27-1] Sodium peroxydisulfate.  $\text{Na}_2\text{O}_8\text{S}_2$ ; mol wt 238.10. Na 19.31%, O 53.76%, S 26.93%.  $\text{Na}_2\text{S}_2\text{O}_8$ . Toxicity data: DaVal, *Arch. Ital. Sci. Farmacol.* **2**, 445 (1933).

White, cryst powder. Gradually dec; decomn is promoted by moisture and higher temp. Initial soly in water at  $20^\circ$ : 549 g/l; dec by alcohol and silver ions. MLD in rabbits (mg/kg): 178 i.v. (DaVal).

**Caution:** Highly irritating to skin, mucous membranes.

**USE:** Bleaching and oxidizing agent; promoter for emulsion polymerization reactions.

**8657. Sodium Pertechnetate  $^{99m}\text{Tc}$ .** [23288-60-0]  $^{99m}\text{Tc}$ ; Ultra-Technekow.  $\text{NaO}_4^{99m}\text{Tc}$ .  $\text{Na}^{99m}\text{TcO}_4$ . Prep'n: Keller, Kanellakopoulos, *Radiochim. Acta* **1**, No. 2, 107 (1963), *C.A.* **59**, 1256a (1963); Kanellakopoulos, AEC Accession No. 31424, Rept. No. **KFK-197**, 73 pp (1964), *C.A.* **62**, 7350d (1965). Clinical application for labelling red blood cells: D. Ducassou *et al.*, *Br. J. Radiol.* **49**, 344 (1976). Diagnostic use in Meckel's diverticulum: D. R. Cooney *et al.*, *J. Pediatr. Surg.* **17**, 611 (1982); in thyroid neoplasms: M. Vorne, K. Jarve, *Eur. J. Nucl. Med.* **13**, 362 (1987). Review of diagnostic use in brain scanning: J. G. McAfee *et al.*, *J. Nucl. Med.* **5**, 811-827 (1964); in thyroid function: M. S. Sucupira *et al.*, *Int. J. Nucl. Med. Biol.* **10**, 29-33 (1983).

**THERAP CAT:** Diagnostic aid (radioactive imaging agent).

**8658. Sodium Phenolsulfonate.** [1300-51-2] Hydroxybenzenesulfonic acid sodium salt; sodium sulfocarbonate.  $\text{C}_6\text{H}_5\text{NaO}_4\text{S}$ ; mol wt 196.16. C 36.74%, H 2.57%, Na 11.72%, O 32.63%, S 16.35%.  $\text{HOC}_6\text{H}_4\text{SO}_3\text{Na}$ .

**Dihydrate.** White, odorless crystals; slightly bitter taste; somewhat efflorescent in dry air. One gram dissolves in 4.2 ml water, 0.8 ml boiling water, 140 ml alcohol, 13.5 ml boiling alcohol, 5 ml glycerol. The aq soln is neutral.

**THERAP CAT:** Intestinal antiseptic.

**THERAP CAT (VET):** Has been used as an intestinal antiseptic, in dusting powders for ulcers, slowly granulating wounds and in dilute solution in the eye.

**8659. Sodium Phosphate, Dibasic.** [7558-79-4] Dibasic sodium phosphate; disodium hydrogen phosphate; disodium orthophosphate; disodium phosphate; DSP; phosphate of soda; secondary sodium phosphate.  $\text{HNa}_2\text{O}_4\text{P}$ ; mol wt 141.96. H 0.71%, Na 32.39%, O 45.08%, P 21.82%.  $\text{Na}_2\text{HPO}_4$ . Industrial production: Faith, Keyes & Clark's Industrial Chemicals (John Wiley, New York, 4th ed., 1975) pp 746-754. Toxicity of heptahydrate: H. F. Smyth *et al.*, *Am. Ind. Hyg. Assoc. J.* **30**, 470 (1969).

**Anhydr. exsiccated sodium phosphate.** Hygroscopic powder. On exposure to air will absorb from 2 to 7 mols  $\text{H}_2\text{O}$ , depending on the humidity and temp. Sol in  $\sim 8$  parts water, much more sol in hot water. Soly per 100 gal water increases from  $\sim 14$  lbs at slightly  $>0^\circ$  to over 900 lbs at  $95^\circ$ . Insol in alc. pH of 1% aq soln at  $25^\circ$ : 9.1. *Keep well closed.*

**Dihydrate.** Sorensen's phosphate; Sorensen's sodium phosphate.

**Heptahydrate.** Crystals or granular powder. Stable in the air. d  $\sim 1.7$ . Sol in 4 parts water, more sol in boiling water; practically insol in alcohol. The aq soln is alkaline, pH  $\sim 9.5$ . LD<sub>50</sub> orally in rats: 12.93 g/kg (Smyth).

**Dodecahydrate.** Translucent crystals or granules; readily loses 5 mols of water on exposure to air at ordinary temp. mp  $34-35^\circ$  (when it contains the full 12 mols of  $\text{H}_2\text{O}$ ). d  $\sim 1.5$ . Sol in 3 parts water; practically insol in alcohol. Aq soln is alkaline, pH  $\sim 9.5$ . *Keep well closed and in a cool place. Incompat:* Alkaloids, antipyrine, chloral hydrate, lead acetate, pyrogallol, resorcinol.

**Caution:** Anhydr form may cause mild irritation to skin, mucous membranes; intern. causes purging.

**USE:** As sequestrant, emulsifier and buffer in foods. As mordant in dyeing; for weighting silk; in tanning; in manuf of enamels, ceramics, detergents, boiler compds; as fireproofing agent; in soldering and brazing instead of borax; as reagent and buffer in analytical chemistry.

**THERAP CAT:** Cathartic.

**THERAP CAT (VET):** Laxative.

**8660. Sodium Phosphate, Monobasic.** [7558-80-7] Sodium biphosphate; sodium dihydrogen phosphate; acid sodium phosphate; monosodium orthophosphate; primary sodium phosphate.  $\text{H}_2\text{NaO}_4\text{P}$ ; mol wt 119.98. H 1.68%, Na 19.16%, O 53.34%, P 25.82%.  $\text{NaH}_2\text{PO}_4$ . It is about 99% pure.

**Monohydrate.** White, odorless, slightly deliquescent crystals or granules. At  $100^\circ$  loses all its water; when ignited it converts into metaphosphate. Freely sol in water; practically insol in alcohol. The aq soln is acid. pH of 0.1 molar aq soln at  $25^\circ$ : 4.5.

**Dihydrate.** Orthorhombic bisphenoidal colorless crystals, mp  $60^\circ$ . d 1.915. At room temp crystallizes with  $2\text{H}_2\text{O}$ . Directions for max yield: Beans, Kiehl, *J. Am. Chem. Soc.* **49**, 1878 (1927).

**USE:** In baking powders; in boiler water treatment; as dry acidulant and sequestrant for foods: Tidridge, Pals, US **3030213** (1962 to FMC).

**THERAP CAT:** Urinary acidifier.

**THERAP CAT (VET):** Urinary acidifier.

**8661. Sodium Phosphate, Radioactive.** [8027-28-9] Sodium phosphate  $^{32}\text{P}$ ; radioactive sodium phosphate; sodium radiophosphate ( $^{32}\text{P}$ ); Phosphotope.

Aq soln of mixed radioactive phosphates with a pH range of 5.0-6.0. Contains radioactive monobasic sodium phosphate ( $\text{NaH}_2^{32}\text{PO}_4$ ) and radioactive dibasic sodium phosphate ( $\text{Na}_2\text{H}^{32}\text{PO}_4$ ).  $^{32}\text{P}$  is a pure beta emitter with a half-life of 14.3 days.

**THERAP CAT:** Antineoplastic; antipolycythemic; diagnostic aid (neoplasm).

**8662. Sodium Phosphate, Tribasic.** [7601-54-9] Trisodium orthophosphate; trisodium phosphate; TSP; Oakite.  $\text{Na}_3\text{O}_4\text{P}$ ; mol wt 163.94. Na 42.07%, O 39.04%, P 18.89%.  $\text{Na}_3\text{PO}_4$ . Crystallizes with 8 and 12 mols of  $\text{H}_2\text{O}$ .

**Dodecahydrate.** Colorless or white crystals. When rapidly heated melts at  $\sim 75^\circ$ . Does not lose the last mol of water even on moderate ignition. d 1.6. Sol in 3.5 parts water, 1 part boiling water; insol in alcohol. The aq soln is strongly alkaline. pH of 0.1% soln: 11.5; of 0.5% soln: 11.7; of 1.0% soln: 11.9. Technical crystals are sometimes made with excess alkali to prevent caking and give more alkaline solutions. LD<sub>50</sub> orally in rats: 7.40 g/kg, H. F. Smyth *et al.*, *Am. Ind. Hyg. Assoc. J.* **30**, 470 (1969).

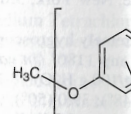
**USE:** In photographic developer; boiler scale, softening water; leather; in detergent mixture.

**8663. Sodium Phosphate Pentahydrate.** White, hygroscopic crystals. Hydration (25°):  $-684.2$  kcal/mole closed.

**8664. Sodium Phosphate Molybdophosphate.**  $\text{Mo}_{12}\text{N}$  60.88%, Na 3.65%, O 33.84%. White crystals. Freely sol in water. **USE:** As reagent in chemical analysis.

**8665. Sodium Phosphate Tungstophosphate.** Approx  $2\text{Na}_2$  White, granular powder. Sol in water. **USE:** As reagent for alkaloids.

**8666. Sodium Polyacrylate.** Anetholesulfonic acid sodium salt polymer. A polymer of anethole sulfonic acid. Used as an anticoagulant, it was complement action and lowers blood viscosity. *Ref:* Demole, Reinert, *Arch. E. Clin. Pathol.* **1**, 311 (1948).



Light brown powder. Insol in water; slowly goes in soln with neutral heat, dil alkalis and dil acids.

**USE:** To inhibit blood coagulation; to encourage the growth of bacterial cultures in colloidal solns such as milk and gelatin.

**8667. Sodium Polymetaphosphate.** ham's salt; "sodium hexametaphosphate"; Hy-Phos. ( $\text{NaPO}_3$ )<sub>x</sub>.  $\text{Na}_x\text{P}_x\text{O}_{3x}$  phosphates; not a hexamer. Prep'd from metaphosphate: Bell, *Inorg. Chem.* **1**, 10 (1962). **USE:** See Sodium Metaphosphate.

Clear, hygroscopic glass. mp  $67^\circ$ . slowly. Depolymerizes in aqueous solution and sodium orthophosphate.

**Sodium hexametaphosphate.** Quadrafos; Hagan phosphate; Microphos.

Quadrifos; Hagan phosphate; Microphos; as the principal agent. Supplied and as small, broken, glass-like particles (8-8.6). Insol in organic solvent.

**USE:** Water softeners and detergents; laundry work, textile processing of softening industrial water supplies.

**8668. Sodium Polystyrene Sulfonate.** Kayexalate. A cation exchange resin. Marketed as a powder, insol in water, methyl cellulose.

**THERAP CAT:** Ion-exchange resin (cationic).

**8669. Sodium Propionate.** [127-08-4] Sodium salt; Impedex.  $\text{C}_3\text{H}_5\text{NaO}_2$ ; mol wt 112.07. Na 23.93%, O 33.31%,  $\text{CH}_3\text{CH}_2\text{COO}$

Transparent crystals, granules. Neutral or slightly alkaline reaction to litmus.  $\sim 1$  ml water, in  $\sim 0.65$  ml boiling water. Most active at acid pH: Wolford, *A. J. Dairy Sci.* **29**, 29 (1945); Olsen, Macy, *J. Dairy Sci.* **29**, 29 (1945).

**basic.** [7558-79-4] Dibasic sodium phosphate; disodium orthophosphate of soda; secondary salt. Mol wt 141.96. H 0.71%, Na 18.89%, P 18.89%. Industrial production: *Chemicals* (John Wiley, New York). Toxicity of heptahydrate: H. F. 40, 470 (1969).

**hydrate.** Hygroscopic powder. 2 to 7 mols H<sub>2</sub>O, depending on parts water, much more sol in water. Weighs from ~14 lbs at slightly alc. pH of 1% aq soln at 25°:

te; Sorensen's sodium phosphate. Stable in the air. Sol in boiling water; practically insol in cold water. LD<sub>50</sub> orally in

rats or granules; readily loses 5 mols H<sub>2</sub>O at ordinary temp. mp 34-35° (H<sub>2</sub>O). d ~1.5. Sol in 3 parts water. Aq soln is alkaline, pH ~9.5. *z. Incompat:* Alkaloids, antipyrogallol, resorcinol. Mild irritation to skin, mucous

membranes. Used as buffer in foods. As mordant in dyeing; in manuf of enamels, as fireproofing agent; in sol as reagent and buffer in ana-

**nonbasic.** [7558-80-7] Sodium phosphate; acid sodium phosphate; primary sodium phosphate. Mol wt 116.07. Na 19.16%, O 53.34%, P 18.89%.

slightly deliquescent crystals or powder when ignited it converts into sodium pyrophosphate; practically insol in alcohol. Aq soln at 25°: 4.5.

colorless crystals, mp 110°C. Sol in 2H<sub>2</sub>O. Directions: *Chem. Soc.* 49, 1878 (1927). Used for water treatment; as dry acidulant. **US 3030213** (1962 to

er.

**bioactive.** [8027-28-9] Sodium phosphate; sodium dihydrogen phosphate with a pH range of 5.0-6.0.

acid sodium phosphate (NaH<sub>2</sub>PO<sub>4</sub>) and sodium phosphate (Na<sub>2</sub>HPO<sub>4</sub>). LD<sub>50</sub> orally in rats: 14.3 days. ipolycthemic; diagnostic aid

**basic.** [7601-54-9] Trisodium phosphate; TSP; Oakite. Na<sub>3</sub>O<sub>4</sub>P; mol wt 162.04. Na<sub>3</sub>PO<sub>4</sub>. Crystal-

white crystals. When rapidly heated it loses the last mol of water even in 3.5 parts water, 1 part boiling water. It is strongly alkaline. pH of 1% soln: 11.9. Tech with excess alkali to prevent precipitation. LD<sub>50</sub> orally in rats: 470 (1969). *Hyg. Assoc. J.* 30, 470 (1969).

USE: In photographic developers; clarifying sugar; removing boiler scale, softening water; manuf paper; laundering; tanning leather; in detergent mixture.

**8663. Sodium Phosphite.** [13708-85-5] HNa<sub>2</sub>O<sub>3</sub>P; mol wt 125.96. H 0.80%, Na 36.50%, O 38.11%, P 24.59%. Na<sub>2</sub>HPO<sub>3</sub>.

**Pentahydrate.** White, hygroscopic cryst powder. Heat of formation (25°): -684.2 kcal/mole. Freely sol in water. *Keep well closed.*

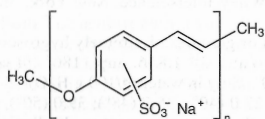
**8664. Sodium Phosphomolybdate.** [1313-30-0] Sodium molybdophosphate. Mo<sub>12</sub>Na<sub>3</sub>O<sub>40</sub>P; mol wt 1891.20. Mo 60.88%, Na 3.65%, O 33.84%, P 1.64%. Na<sub>3</sub>PO<sub>4</sub>·12MoO<sub>3</sub>.

White crystals. Freely sol in water. USE: As reagent in chemical analysis.

**8665. Sodium Phosphotungstate.** [51312-42-6] Sodium tungstophosphate. Approx 2Na<sub>3</sub>O·P<sub>2</sub>O<sub>5</sub>·12WO<sub>3</sub>·18H<sub>2</sub>O.

White, granular powder. Sol in water. USE: As reagent for alkaloids, uric acid, potassium.

**8666. Sodium Polyanetholesulfonate.** [52993-95-0] Polyanetholesulfonic acid sodium salt; anetholesulfonic acid sodium salt polymer. A polymer of anetholesulfonic acid. Originally developed as an anticoagulant, it was soon found that it possesses anticoagulant action and lowers the bactericidal action of blood. *Ref:* Demole, Reinert, *Arch. Exp. Pathol. Pharmacol.* 158, 211 (1930); Friedmann, *Klin. Wochenschr.* 14, 215 (1935); Stuart, *J. Clin. Pathol.* 1, 311 (1948).



Light brown powder. Insol in alcohol. Swells in water and slowly goes in soln with neutral reaction. Aq solns are stable to heat, dil alkalis and dil acids.

USE: To inhibit blood coagulation *in vitro*, and as diagnostic reagent to encourage the growth of pathogens in blood. To stabilize colloidal solns such as milk and gelatin.

**8667. Sodium Polymetaphosphate.** [50813-16-6] Graham's salt; "sodium hexametaphosphate"; glassy sodium metaphosphate; Hy-Phos. (NaPO<sub>3</sub>)<sub>x</sub>. A mixture of polymeric metaphosphates; not a hexamer. Prep by rapidly chilling molten sodium metaphosphate: Bell, *Inorg. Synth.* 3, 103 (1950). *Reviews:* see Sodium Metaphosphate.

Clear, hygroscopic glass. mp 628°. Sol in water, but dissolves slowly. Depolymerizes in aqueous soln to form sodium trimetaphosphate and sodium orthophosphates.

**Sodium hexametaphosphate detergents.** Calgon; Giltex; Quadrafos; Hagan phosphate; Micromet. Mixtures contg Graham's salt as the principal agent. Supplied in the form of a powder, flakes, and as small, broken, glass-like particles. Sol in water (pH adjusted to 8-8.6). Insol in organic solvents. Possess dispersing and deflocculating properties, coagulate albumins, and inhibit the crystal growth of slightly sol compds such as calcium carbonate and calcium sulfate.

USE: Water softeners and detergents. For leather tanning, dyeing, laundry work, textile processing; for the "threshold treatment" of softening industrial water supplies.

**8668. Sodium Polystyrene Sulfonate.** [9003-59-2] Resonium A; Kayexalate. A cation exchange resin charged with sodium. Marketed as a powder, insol in water; also as an emulsion with methyl cellulose.

THERAP CAT: Ion-exchange resin (potassium).

**8669. Sodium Propionate.** [137-40-6] Propionic acid sodium salt; Impedex. C<sub>3</sub>H<sub>5</sub>NaO<sub>2</sub>; mol wt 96.06. C 37.51%, H 5.25%, Na 23.93%, O 33.31%. CH<sub>3</sub>CH<sub>2</sub>COONa.

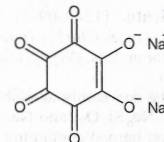
Transparent crystals, granules. Deliquescent in moist air. Neutral or slightly alkaline reaction to litmus. One gram dissolves in ~1 ml water, in ~0.65 ml boiling water, in ~24 ml alcohol at 25°. Most active at acid pH: Wolford, Andersen, *Food Ind.* 17, 622 (1945); Olsen, Macy, *J. Dairy Sci.* 29, 173 (1946).

USE: Fungicide, mold preventative.

THERAP CAT: Antifungal (topical).

THERAP CAT (VET): In ketoses of ruminants (glucose precursor). Antifungal agent. Has been used in dermatoses, wound infections, conjunctivitis.

**8670. Sodium Rhodizonate.** [523-21-7] 5,6-Dihydroxy-5-cyclohexene-1,2,3,4-tetrone disodium salt; [(3,4,5,6-tetraoxo-1-cyclohexen-1,2-ylene)dioxy]disodium. C<sub>6</sub>Na<sub>2</sub>O<sub>6</sub>; mol wt 214.04. C 33.67%, Na 21.48%, O 44.85%.



Violet crystals. Sol in water with an orange-yellow color; slightly sol in soda soln; insol in alc. Solns are unstable even in the refrigerator, and must be prep fresh every other day.

USE: As a reagent for barium and strontium.

**8671. Sodium Selenate.** [13410-01-0] Na<sub>2</sub>O<sub>4</sub>Se; mol wt 188.94. Na 24.34%, O 33.87%, Se 41.79%. Na<sub>2</sub>SeO<sub>4</sub>. Acute toxicity study: C. Nofre *et al.*, *C.R. Hebd. Seances Acad. Sci.* 257, 791 (1963). *Review:* NTP Technical Report on Toxicity Studies of Sodium Selenate and Sodium Selenite (NIH 94-3387, 1994) 121 pp.

**Decahydrate.** [10102-23-5] White crystals; very sol in water. LD<sub>50</sub> i.p. in mice: 18.45 mg/kg (Nofre).

USE: Insecticide in some horticultural applications.

THERAP CAT (VET): Dietary growth promoter for poultry and livestock.

**8672. Sodium Selenide.** [1313-85-5] Na<sub>2</sub>Se; mol wt 124.94. Na 36.80%, Se 63.20%. Prep by adding selenium to a soln of sodium in liquid ammonia: Hugot, *Compt. Rend.* 129, 299 (1899); *Ann. Chim. Phys.* [7] 21, 34 (1900); Feher in *Handbook of Preparative Inorganic Chemistry* vol. 1, G. Brauer, Ed. (Academic Press, New York, 2nd ed., 1963) p 421.

Amorphous crystals. d<sup>10</sup> 2.625. mp >875°. Turns red on exposure to air and deliquesces. Dec in water. Insol in ammonia.

**Hemihydrate.** Fine needles. Turns red on exposure to air and deliquesces.

**Decahydrate.** Needles. Turns red and then brown on exposure to air.

**Hexadecahydrate.** Prisms. mp 40°. Dec in air to sodium carbonate, selenium and a small amount of sodium selenide.

**8673. Sodium Selenite.** [10102-18-8] Selenious acid disodium salt; Selenase. Na<sub>2</sub>O<sub>3</sub>Se; mol wt 172.94. Na 26.59%, O 27.75%, Se 45.66%. Na<sub>2</sub>SeO<sub>3</sub>. Prep by evaporating an aqueous solution of sodium hydroxide and selenious acid between 60° and 100°: Krak, *J. Am. Ceram. Soc.* 12, 530 (1929); by heating a mixture of sodium chloride and selenium oxide: Cameron, Macallan, *Proc. Roy. Soc.* 46, 13 (1890). Metabolism: M. Sandholm, *Acta Pharmacol. Toxicol.* 33, 6 (1973); H. W. Symonds *et al.*, *Br. J. Nutr.* 45, 117 (1981). Mutagenicity study: M. Noda *et al.*, *Mutat. Res.* 66, 175 (1979). Toxicity study: Cummins, Kimura, *Toxicol. Appl. Pharmacol.* 20, 89 (1971). Clinical effect of selenium supplementation on immune cell function: M. Roy *et al.*, *Biol. Trace Elem. Res.* 46, 115 (1994); L. Kiremidjian-Schumacher *et al.*, *ibid.* 183. Clinical evaluation as immunostimulant in head and neck cancer: *idem*, *ibid.* 73, 97 (2000); in treatment of radiation-associated secondary lymphedema: O. Mücke *et al.*, *Int. J. Radiat. Oncol. Biol. Phys.* 56, 40 (2003).

Tetragonal prisms. Stable in air. Freely sol in water. Insol in alcohol. LD<sub>50</sub> orally in rats: 7 mg/kg (Cummins, Kimura).

USE: Removing green color from glass during its manuf; alkaloid reagent.

THERAP CAT: Selenium supplement.

THERAP CAT (VET): Selenium supplement for livestock.

**8674. Sodium Sesquicarbonate.** [533-96-0] Urao; trona. C<sub>2</sub>HNa<sub>3</sub>O<sub>6</sub>; mol wt 190.00. C 12.64%, H 0.53%, Na 36.30%, O