

18th Century Chemical Terms & Their Meaning

A

Absorbent Earth

Chalk, marble, and clays. No specific formulas. Generally carbonates, silicates, and sulfates.

Acesunt

Any substance which is slightly acid, or turning sour.

Acetated Earths, Metals, Etc.

Acetates ($C_2H_3O_2^-$).

Acetous Acid

Impure acetic acid from vinegar.

Acetum

Referring to vinegar, or to a compound made from vinegar, as in "acetum radicum."

Acid Air (Priestley)

Hydrogen chloride (HCl).

Acid From Ants

Formic acid (HCOOH).

Acid, Nitri Phlogistic

See Nitrous Air.

Acid of Amber

Succine acid ($C_4H_6O_4$).

Acid of Apples

Malic acid ($C_4H_6O_5$).

Acid of Arsenic

Arsenic acid (H_3AsO_4).

Acid of Barberry

Malic acid.

Acid of Benzoin

Benzoic acid (C_6H_5COOH).

Acid of Borax

Boric acid (H_3BO_3).

Acid of Burning Sulphur

Sulfurous acid (H_2SO_3).

Acid of Four Spar

Hydrofluoric acid (mixed usually with silicon fluoride) (HF; SiF_4).

Acid of Lemons

Citric acid ($C_6H_8O_7$).

Acid of Milk

Lactic acid ($C_3H_6O_3$).

Acid of Milk-Sugar

Mucic acid ($COOH(CHOH)_4COOH$).

Acid of Molybdaena

Molybdic acid (H_2MoO_4).

Acid of Nitre

Nitric acid (HNO_3).

Acid of Phosphorus

Phosphoric acid (H_3PO_4).

Acid of Salt

Hydrochloric acid (HCl).

Acid of Sea-Salt

Hydrochloric acid, alone, or in a compound (i.e., the Cl^- radical).

Acid of Sorrel

Oxalic acid ($COOH COOH$).

Acid of Sugar

Oxalic acid ($COOH COOH$).

Acid of Tamarinds

Tartaric acid ($C_4H_6O_6$).

Acid of Tartar
Tartaric acid.

Acid of Urine
Phosphoric acid (H_3PO_4)

Acid of Vinegar
Acetic acid (CH_3COOH).

Acid of Vitriol
Sulfuric acid (H_2SO_4)

Acidium Aereum
Carbon dioxide (CO_2).

Acidium Mephiticum
Carbon dioxide (CO_2).

Acidium Pingue
J.F. Meyer's hypothesized "fatty acid."

Acidium Sacchari
Oxalic acid (COOH COOH).

Acid Vitriolated Tartar
Potassium hydrogen sulphate (KHSO_4).

Adopters
Small, circular vessels with a necked opening and a spout opposite. They were connected between the distilling head and the receiver.

Aduration
A union or combination into one.

Aerated Alkali
Any alkali carbonate (e.g., K_2CO_3).

"Aerated" Compounds (Bergman)
Carbonates (CO_3^{2-}).

Aerated Lime
Calcium carbonate (CaCO_3).

Aerated Water
Water containing dissolved carbon dioxide.

Aer Hepaticus
Hydrogen sulfide (H_2S).

Aerial Acid
Carbon dioxide (CO_2).

Aerugo (Aeruca) (Rust of Copper)
See Verdigris.

Aer Urinosum
Ammonia (NH_3).

Aethiops Mercuriales
See Aethiops Mineralis.

Aethiops Mineralis (Aethiops Mercuriales)
Black mercuric sulphide (Hg_2S).

Air
Generally, any substance in gaseous state.

Air (Priestley)
A gaseous substance which could not be liquified by cold.

Air, Dephlogisticated
Oxygen (O_2).

Air, Fixed
Carbon dioxide (CO_2).

Air, Hepatic
Hydrogen sulphide (H_2S).

Air, Inflammable
Hydrogen (H_2).

Air, Marine Acid

Hydrogen chloride (HCl).
Air, Mephitic
Carbon dioxide (CO₂).
Air, Phlogisticated
Nitrogen (N₂).
Air, Vital
Oxygen (O₂).
Air of Flour Spar
Hydrofluoric acid gas (usually with silicon fluoride) (HF).
Air of Vitriol
Sulphur dioxide (SO₂).
Alaunerde
Alumina (Al₂O₃).
Alcohol
Usually spirit of wine (CH₃CH₂OH) (sometimes *any* very fine powder).
Alembic
A type of distillation apparatus.
Alexipharmic
A remedy or preservative against poison.
Alicant Kelp
Crude sodium carbonate (Na₂CO₃).
Alk. Min. Vitriol
Sodium sulphate (Na₂SO₄).
Alkahest
Originally, the universal solvent (alchmeical term)
Alkahest Glauber
See Fixed vegetable alkali (K₂CO₃)
Alkahest of Reapour
See fixed vegetable alkali (K₂CO₃)
Alkahest of Van Helmot (Glauber's Alkahest)
concentrated potassium carbonate (K₂CO₃)
Alkalescent
Any substance which is slightly alkaline or turning alkaline
Alkali, Caustic
Hydroxides (OH⁻)
Alkali, Common mineral
Sodium Carbonate (Na₂CO₃ · 10H₂O)
Alkali, Concrete Volatile
Ammonium carbonate (NH₄)₂CO₃)
Alkali, Fossil
Sodium Carbonate (Na₂CO₃)
Alkali, Marine
Sodium Carbonate (Na₂CO₃)
Alkali, Mild
Carbonates (CO₃²⁻)
Alkali, Vegetable, Fixed
Potassium Carbonate (K₂CO₃)
Alkali, Vegetable, Mild
Potassium Carbonate (K₂CO₃)
Alkali, Volatile
Ammonia (NH₃)
Alkali of Soda
Sodium carbonate (Na₂CO₃)
Alkali of Tartar
Potassium Carbonate (K₂CO₃)
Alkali of Wine Lees

Potassium carbonate (K_2CO_3)

Alkali Veg. Saltium
Potassium chloride (KCl)

Alkali Veg. Vitriolat
Potassium sulphate (K_2SO_4)

Alkaline Air (Priestly)
Ammonia gas (NH_3)

Alkalized Nitre
See fixed nitre

Allay
Alloy

Allonge
See Adapters

Alterant
Anything which alters or changes the state of another

Aludels
A unit of a multiple-head, earthenware distilling apparatus. Usually used for sublimations.

Alum
Mixed double salts of aluminum sulphate with potassium sodium or ammonium sulfate.
(Potassium salt, when pure, was most commonly called "Alum."). ($Al_2(SO_4)_3 \cdot K_2SO_4 \cdot 24H_2O$);
($Al_2(SO_4)_3 \cdot (NH_4)_2SO_4 \cdot 24H_2O$); ($Al_2(SO_4)_3 \cdot Na_2SO_4 \cdot 24H_2O$).

Alumen
Aluminum sulphate ($Al_2(SO_4)_3$).

Alumen Ustum (Burnt Alum)
alum dehydrated by heating

Amalgam
Any mercury alloy

Ammoniacal Nitre
Ammonium nitrate (NH_4NO_3)

Ammonium Fixatum (Fixed Ammoniac)
The residue on heating sal ammoniac with lime, i. e., calcium chloride ($CuCl_2$)

Ammonium Nitrosum
Ammonium nitrate (NH_4NO_3)

Animal Alkali
Ammonium carbonate [$(NH_4)_2CO_3$]

Anodyne
A medicine or drug which alleviates pain.

Antichlor
Hydrated sodium thiosulfate ($Na_2S_2O_3$)

Antimonial Caustic
Antimony trichloride ($SbCl_3$)

Antimonium Diaphoreticum
Mixture of antimony oxide and potassium antimoniate (Sb_2O_3 ; $KSbO_3$)

Antimony
Antimony sulfide (Sb_2S_3) (pre-eighteenth century). Pure antimony was called "regulus of antimony."

Antizeumic
Opposed to fermentation

Aqua Fortis
Concentrated nitric acid (HNO_3)

Aqua Phaganeda or Phagadenica
A mixture of corrosive sublimate and limewater

Aqua Regia
Mixture of HCl and HNO_3 . Various proportions were used, depending on the material to be dissolved. Commonly, more nitric acid than hydrochloric was employed.

Aqua Secunda

Dilute nitric acid , often used for cleaning metals and minerals.

Ardent Spirit
Ethyl alcohol obtained after repeated distillations ($\text{CH}_3\text{CH}_2\text{OH}$)

Argillaceous Earth
Clay

Aromatic Oil
Any "oil" with a sweet or exotic odor. Often an essential oil.

Arsenic
Arsenic trioxide (As_2O_3)

Arsenical Sal Ammoniac
Ammonium arsenate (NH_4HAsO_4).

Ash, Black
Impure sodium carbonate (Na_2CO_3).

Ash, Pearl
See Pearl Ash

Ash, Pot
See potash

Ashes of Tin
Stannic oxide (SnO_2)

Assay
A quantitative determination of the metal in an ore or alloy

Atramentum
Ferrous sulfate (FeSO_4)

Attrition
The action of rubbing one body against another; mutual friction.

Auripigmentum
Arsenic trisulfide (As_2S_3)

Aurum Fulminans
An explosive gold compound prepared from gold dissolved in "Aqua Regia" and a solution of ammonium carbonate. The exact formula is still in doubt.

Avolation
Evaporation,escape, act of "flying away."

Azote
nitrogen (N_2)

Azure
A blue pigment from cobalt

Azurite
Basic copper (cubic) carbonate ($2\text{CuCO}_3 \cdot \text{Cu(OH)}_2$)

B

Baking Soda
Sodium bicarbonate (NaHCO_3)

Balloons
Vessels used to receive condensation products in distillation.

Balneum Mariae
The water bath used for heating more delicate materials such as animal and vegetable matter.

Balsam
Light oily aromatic extracts from trees which cure into resins.

Barilla
Impure soda extracted from soap-wort (impure Na_2CO_3)

Barite, Baryte(s)
Barium sulfate (BaSO_4)

Baryta
Barium oxide (BaO)

Basis or Base

Any substance "A" which (1) is dissolved by substance "B"; (2) receives "B" and "fixes" it; (3) forms a compound of "B."

Bath Metal

A 4:1 alloy of copper and zinc, respectively.

Bay Salt

Sodium chloride (NaCl).

Beak

A tube, usually tapered, attached to a vessel to allow the exit of its contents.

Berlin Blue

Ferric ferrocyanide ($\text{Fe}_4[\text{Fe}(\text{CN})_6]_3$).

Berlin Green

Ferric ferricyanide ($\text{Fe}[\text{Fe}(\text{CN})_6]$).

Berthollet's Salt

Potassium chlorate (KClO_3).

Bezoardicum Minerale

See Bezoar Mineral.

Bezoar Mineral

Antimonic acid (H_3SbO_4).

Bismuth Corne

Bismuth oxychloride (BiOCl).

Bitter Cathartic Salt

Magnesium sulfate (MgSO_4).

Bitter Earth

Magnesium oxide or carbonate (MgO ; MgCO_3).

Bittern

Liquor remaining after salt-boiling; a solution containing magnesium salts.

Bitter Salt

Magnesium sulphate ($\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$).

Bitter Spar

"Dolomite" -Calcium and magnesium carbonate ($\text{CaCO}_3 \cdot \text{MgCO}_3$).

Bitumens

An amorphous grouping of resinous and petroleum products: crude oil, amber, asphaltum, coal.

Black Ash

Impure sodium carbonate (impure Na_2CO_3)

Black Copper

Copper sulfide (CuS).

Black Flux

A mixed product from the deflagration of charcoal, metal filings, nitre, and excess tartar.

Black Jack

See Blend.

Black Lead

Natural graphite of the sort used in pencils.

Black Wad

Manganese dioxide.

Blend

A mineral which looks very much like galena (PbS) and thus sometimes called "false galena." Now known as sphalerite. Primarily zinc sulfide (ZnS).

Blind Head

The top portion of a distilling apparatus which is not equipped with a beak or spout.

BLUE VITRIOL

Copper sulfate (CuSO_4)

BOLE (OR BOLAR EARTH)

Clays which adhere to the tongue when applied dry and which are colored yellow and red by a ferruginous (iron oxide) earth.

BORAX

Sodium tetraborate ($\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$).

BRASS

An alloy of copper and zinc.

BRAUSTEIN

Manganese dioxide (MnO_2).

BRIMSTONE

Sulphur (S).

BRONZE

An alloy of copper and tin.

BUDDLING DISH

A flat pan or vat used in washing ores.

BURNING SPIRIT OF SATURN

Impure acetone (CH_3COCH_3).

BURNT ALUM

Exsiccated alum ($\text{AlK}(\text{SO}_4)_2$). Product of heating potassium alum.

BURNT LIME

See Quicklime.

BUTTER OF ANTIMONY

Deliquescent antimony trichloride (SbCl_3)

BUTTER OF ARSENIC

Arsenic trichloride (AsCl_3)

BUTTER OF TIN

Stannic chloride (SnCl_4)

BUTTER OF ZINC

Zinc chloride (ZnCl_2).

BUTYRUM ANTIMONII

See Butter of Antimony.

C**CADMIA**

A term used for various forms of several substances, including cobalt. Minerals containing carbonates of zinc and various compounds of iron, among other things, were often called cadmia or "calamine."

CALAMINE

In its purest form, zinc carbonate (ZnCO_3)'

CALAMY (CALAMINE)

Zinc carbonate (ZnCO_3), sometimes ($\text{Zn}_2\text{SiO}_4 \cdot \text{H}_2\text{O}$).

CALCAREOUS EARTH

Usually chalk (CaCO_3). Also possible magnesia and/or alumina and/or barytes. Also lime.

CALCARIUM POTENTIALE

Potassium carbonate (K_2CO_3).

CALCIC LIVER OF SULFUR

Calcium sulfide (CaS).

CALCINATION

The action of fire on mineral substances in which the reactants (a) often lose a noticeable amount of weight, (b) acquire a white color, (c) become friable (easily crumbled or pulverized). Almost always, a very high heat is employed.

CALCINED METALS

Oxides.

CALCITE

Calcium carbonate (CaCO_3)

CALLUS

Any hard formation on the surface of a liquid or another solid.

CALOMEL

Mercurous chloride (Hg_2Cl_2)

CALX

Any powder obtained by strongly heating a substance in air. Almost always an oxide.

CALX ACETOSELL

Calcium oxalate (CaC_2O_4)

CALX AERATA

Calcium carbonate (CaCO_3)

CALX CITRATA

Calcium citrate ($\text{Ca}_3(\text{C}_6\text{H}_5\text{C}_7)_2 \cdot 4 \text{H}_2\text{O}$).

CALX MOLYBDAENATA

Calcium molybdate (CaMoO_4)

CALX OF ANTIMONY

Antimony trioxide (Sb_2O_3)

CALX OF GOLD

Not a true compound, but small discolored pieces of gold formed after exposure to relatively high heat.

CALX OF STONE

Calcium oxide (CaO).

CALX PLUMBI AERATA

See White Lead.

CALX SACCHARATA

Calcium oxalate (CaC_2O_4).

CALX. TARTARISATA

Calcium tartrate ($\text{CaC}_4\text{H}_4\text{O}_6 \cdot 4\text{H}_2\text{O}$).

CALX VIVA

Quicklime (CaO).

CAMPHIRE (CAMPHORA, CANFORA, ETC.)

See Camphor.

CAMPHOR

An aromatic extract from the sap of certain trees found in Brazil and the Far East.

CAPUT MORTUM

Most commonly signifies any solid residue remaining after dry distillation. Sometimes used for ferric oxide (Fe_2O_3)

CARBONATE OF LIME

Calcium carbonate (CaCO_3).

CARBONIC ACID

Carbon dioxide (CO_2).

CARBONIC OXIDE

Carbon monoxide (CO).

CARBURETTED HYDROGEN GAS

Methane (CH_4)

CATHARTIC SALT OF GLAUBER

Sodium sulphate (Na_2SO_4).

CAUSTIC ALKALIS

Hydroxides ($-\text{OH}^-$).

CAUSTIC BARYTA

Barium hydroxide ($\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$).

CAUSTIC CALCAREOUS EARTH

Calcium hydroxide ($\text{Ca}(\text{OH})_2$).

CAUSTIC LEY (CAUSTIC LEES, ETC.)

See Caustic Lye.

CAUSTIC LYE:

Since "lye" had several meanings, this phrase was often used to refer specifically to the three strong mineral (NaOH , KOH , and NH_4OH) bases and usually meant potassium hydroxide (KOH).

CAUSTIC PONDEROUS EARTH

Hydrated barium hydroxide ($\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$).

CAUSTICUNI ANTIMONIALE

Probably antimony trichloride (SbCl_3)

CAWK

Barium sulphate (BaSO_4)

CEMENTATION
Any process by which a solid is caused to penetrate and combine with another substance.

Cendres Gravellees
Potassium carbonate (K_2CO_2).

Ceruse (Cerussa) (Cerule)
See White Lead.

Cerule Antimony
White antimony trioxide (Sb_2O_3).

Chalk
Calcium carbonate (CaCO_3).

Chalybeate (Water)
Any water which is impregnated or flavored with iron.

Chalybs cum Sulphure Preparatus
Ferrous sulfide (FeS).

Chalybs Tartar (Tartarified Iron)
A substance produced by the action of cream of tartar on iron filling. Probably ($\text{FeC}_4\text{H}_4\text{O}_6$).

Chymists Spirit
Any solution of ammonia (NH_4OH).

Cineres Clavellati
Potassium carbonate (K_2CO_3).

Cinnabar
Mercuric sulfide (HgS).

Cinnabar of Antimony
Mercuric sulphide (HgS), when produced by heating together mercuric chloride and crude antimony (antimony trisulfide).

Circulation
Cyclic distillation or refluxing.

Citrated Alkalies
Citrates.

Clays
Any stiff but malleable and sticky mineral solid.

Clyssus
Any vapors from the detonation of nitre with other substances which have been condensed and collected, as in clyssus of sulphur.

Coagulation
Reducing fluids to solid form.

Coagulum
A precipitate.

Cobalt
Cobalt ore. Pure cobalt was regulus of cobalt (CoAsS).

Cochineal
A scarlet dye made from the insect *Coccus cacti*, native to Mexico and Central America.

Coction
Any process in which heat was applied over a long period. This term usually implied less strenuous applications of heat than calcination, but it was used more broadly than decoction.

Cohobation
Repeated distillations, or any cyclic process in which a liquid is vaporized and condensed as, for example, in refluxing.

Colcothars
Any colorless sulfates (vitriols) in which the water of hydration was removed ($-\text{SO}_4$).

Colcothar
Ferric oxide (Fe_2O_3).

Colcothar Vitrioli
Red oxide of iron ($\text{Fe}_2\text{O}_3 \cdot \text{FeO}$) produced by heating green vitriol.

Collature

Filtration through a relatively coarse filter, e.g., a hair sieve, woolen cloth, etc.

Colophony
A resinous substance from distillation of light oil from turpentine.

Common Ammoniac
Ammonium Chloride (NH_4Cl).

Common Caustic
Potassium hydroxide or, less often, sodium hydroxide.

Common Magnesia
Magnesium carbonate (MgCO_3).

Common Mineral Alkali
Sodium carbonate (Na_2CO_3).

Common Nitre (Saltpeter)
Potassium nitrate (KNO_3).

Common Salt
Sodium chloride (NaCl).

Concentration
Any process in which the solute/solvent ratio is increased. Less often, this term was used to describe the separation of a substance A from a substance B joining it to a third substance, C.

Concreted
Solidified, congealed, coagulated, or (as verb) to unite, combine physically, as in solidity. Very rarely used for chemical combinations.

Concrete Volatile Alkali
Ammonium carbonate ($(\text{NH}_4)_2\text{CO}_3$).

Copperas
Originally blue vitriol. Later sometimes used for the entire class of vitriols (sulfates). Also sometimes ferrous sulfate ($\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$).

Corneous (Horn) Lead
Lead chloride (PbCl_2).

Corning
Any process in which a whole or coarsely ground substance is granulated.

Cornu Cervi
Impure ammonium carbonate ($(\text{NH}_4)_2\text{CO}_3$).

Corrosive Sublimate
Mercuric chloride (HgCl_2).

Coruscate
To give off intermittent flashes of light, to sparkle.

Cream of Lime
Fine precipitate of calcium hydroxide ($\text{Ca}(\text{OH})_2$) from water.

Cream of Tartar (Tartar)
Potassium hydrogen tartrate ($\text{KHC}_4\text{H}_4\text{O}$).

Creech
Calcium sulfate (CaSO_4).

Cremor
Any scum gathering at or near top of a liquid. Also, a thickening or change in color or consistency on top or within a liquid.

Creta Alba
Gypsum (calcium sulfate dihydrate) ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$).

Crocus
Any solid of a saffron or reddish color, as in Crocus of Mars.

Crocus Martis
Ferric oxide (Fe_2O_3).

Crocus of Iron
Ferric oxide.

Crocus of Mars
Ferric oxide.

Crocus Saturni

Red lead (minium) (Pb_3O_4).

Crude Antimony
Natural antimony sulfide (Sb_2S_3).

Crude Flux
Nitric acid and tartar mixed in any proportion without detonation.

Crystalline Earths
Any solid which is (1) not attacked in acids, (2) friable, (3) hard enough to strike fire with steel.

Crystallised Alkali
Sodium carbonate (Na_2CO_3).

Crystallised Verdigris
Cupric acetate ($\text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2 \cdot \text{H}_2\text{O}$).

Crystallised Volatile Alkali
Ammonium carbonate ($\text{NH}_4)_2\text{CO}_3$.

Crystallization
Any process in which crystals are formed from a liquid. Usually accomplished through concentrating and/or cooling a solution.

Crystals of Copper
Mostly copper acetate ($\text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2$).

Crystals of Silver (Lunar Crystals)
Silver nitrate, usually as a powder (AgNO_3).

Crystals of Venus
Copper acetate ($\text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2$).

Cubic Nitre
Crystallized sodium nitrate (NaNO_3).

Cucurbit
The lower part of an alembic. Shorter, more squat and ovoid than a matrass.

Cyprian Vitriol
Copper sulfate (CuSO_4).

D

Damps
Any dangerous vapors in caves, mines etc.

Decantation
To separate the supernatant liquid from a solid precipitate by pouring the liquid off, being careful that all of the solid remains in the vessel.

Decoction
Continuous application of boiling heat to a reaction mixture.

Decomposed
Doubly compounded, or composed of three or more substances.

Decrepitation
Rapid physical decomposition of some crystals when heated. Characterized by a crackling noise.

Deflagration
To cause a substance to burn rapidly, with flame.

Deliquescence
The property some crystalline substances have of dissolving spontaneously in liquid absorbed from the air.

Deliquium
Change of salt from a solid to a fluid state by contact with air only.

Demi-Metal
See Semi-Metals

Dephlegmation
To remove water from a solution, usually one of an acid or alcohol. There is a sense of purifying about the term, as opposed to simple concentration.

Dephlogisticated Acid of Salt
Chlorine (Cl_2).

Dephlogisticated Air

Oxygen (O_2).

Dephlogisticated Calx of Iron
Ferrous oxide (Hydroxide) (FeO or $Fe(OH)_2$).

Dephlogisticated Marine Acid
Chlorine (Cl_2).

Depuration
To free from impurities, purify.

Desquamation
The process of removing scaly crusts which form on a surface.

Detonation
Any rapid chemical reaction accompanied by noise and often heat and light, e.g., explosions.

Diaphoretic
Any substance which induces perspiration when administered to a patient.

Diaphoretic Antimony
Mixture of a antimony oxide and potassium antimonate (Sb_2O_3 ; $KSbO_3$).

Digestion
The process in which heat is continuously applied to a substance without boiling it (usually in open vessels).

Digestive Salt
Potassium chloride (KCl).

Digestive Salt of Sylvius
Potassium chloride (KCl).

Diminished Nitrous Air (Priestly)
Nitrous oxide (N_2O).

Distillation
A process in which all or some portion of a substance is vaporized and then condensed and collected.

Distillation Per Ascensum
Distillation with the collecting vessel above the heated vessel.

Distillation Per Decensum
Any distillation where the collecting vessel is below the heated vessel.

Distillation Per Obliquum
Distillation in a retort used for substances of (a)relatively low vapor pressure and (b)other properties that make distillation difficult, e.g., honey.

Distillation with Addition
Adding some substance prior to distillation that will aid the process by (1) loosening the desired volatile product chemically from its compound; (2) fixing the product not desired, thus retaining it in the vessel; (3) by adding a volatile substance desired, thus making the fixed substance volatile (addition of properties).

Diuretic Salt
Potassium acetate ($KC_2H_3O_2$).

Division
Any process in which mixtures are separated into their homogeneous components by mechanical means.

Docimacy
Assaying

Dry Way
Term used for all operations that are conducted without adding a liquid medium. Reactions done through fusion, however, are still regarded in the dry way.

Dulcification
Any process in which a caustic substance is rendered less corrosive.

E

Earth

Usually a carbonate, oxide or hydroxide. Earths were originally classified by physical properties as absorbent, crystalline, and dry, insipid, not inflammable, fusible solids which often recovered their original texture after fusion.

Earth, Calcareous, Caustic

Calcium hydroxide ($\text{Ca}(\text{OH})_2$)

Earth, Calcareous, Mild

Calcium carbonate (CaCO_3)

Earth, Magnesian, Mild

Magnesium carbonate (MgCO_3)

Earth, Silicious

Silica (SiO_2)

Earth Rhubarb

Calcium oxalate (CaC_2O_4)

Earthy Salts

Compound of acids and earths.

Eau Forte

(Strong Water) Usually concentrated nitric acid (HNO_3), sometimes (1) spirit of wine (ethanol), (2) caustic soda solution.

Ebullition

The agitating, bubbling action of a liquid that is undergoing rapid, active boiling.

Edulcorated Quicksilver

Mercurous chloride (Hg_2Cl_2)

Edulcoration

The washing of a solid (often a precipitate) with water to free it from soluble impurities such as salts and acids. Because of the latter, there are overtones of sweetening, purification, and softening with this term.

Elaeosaccharum

A mixture of an oil and sugar. Used to make oils soluble in water, wines, spirits, etc.

Electuaries

Medicinals in the form of a paste or conserve.

Elixation

The action of boiling or stewing.

Elutriation

Separation and purification of a mixture of granular solids with water by (a) decanting, (b) straining, or (c) washing.

Emetic

Any substance that induces vomiting.

Emetic Powder

Potassium antimonyl tartrate ($\text{KSbC}_4\text{H}_4\text{O}_7 \cdot (1/2) \text{H}_2\text{O}$)

Emplastrum Simplex

Impure lead oleate ($\text{Pb}(\text{C}_{18}\text{H}_{33}\text{O}_2)_2$)

Empyreumatic

Tasting or smelling or burnt organic matter.

Empyreumatic Oils

Liquid oils that (a) are acid, (b) are soluble, (c) do not retain the taste and odor of the substance from which they are obtained, (d) have a taste and/or odor of burnt organic matter.

Enfiladid Ballon

A spherical vessel with opposed, necked openings.

English Laxative Salt

Magnesium sulphate (MgSO_4)

English Salt

See Bitter Salt

Ens Martis

A mixture probably consisting of iron chlorides and ammonium chloride. Used as a medicine.

Ens Veneris

A mixture probably consisting of copper chlorides and ammonium chloride. Used as a medicine.

Epsom Salts
Magnesium sulfate (MgSO_4)

Essay
See Assay

Essence
Any essential oil.

Essential Oil
Any oil that smells the same as the vegetable from which it was obtained and has a low boiling point (below that of water)

Essential Oil of Turpentine
The most volatile portion of turpentine.

Etain de Glace
Bismuth (Bi)

Ether
In the 18th century, alkyl chlorides and nitrates often were confused with true ethers, such as ethyl ether ($\text{CH}_3\text{CH}_2\text{-O-CH}_2\text{CH}_3$).

Ether of Benzoin
Ethyl benzoate ($\text{C}_9\text{H}_{10}\text{O}_2$)

Ether of Nitre
Mainly ethyl nitrite ($\text{C}_2\text{H}_5\text{NO}_2$)

Ether of Vinegar
Ethyl acetate ($\text{C}_4\text{H}_{10}\text{O}_2$)

Ether of Vitriol
Ethyl ether ($\text{C}_4\text{H}_{10}\text{O}$)

Ethiops Mineral
Mostly black mercury sulfide (Hg_2S)

Evaporation
Any process in which the liquid portion of a solution or mixture is vaporized, often with the help of heat.

Exalt
To make more spiritous, volatile, or generally more active; activate.

Exsiccate
To dry; remove moisture.

Exhalation
When parts of substances are separated by heat from the solid and fly off into the air. Used as a tool to obtain fixed parts as well as volatile parts. This includes calcination, distillation, etc.

Expression
To separate a component from organic matter or any other solids or semisolids by squeezing the material in a press. A mechanical rather than chemical means of separation.

Extemporaneous Alkali:
See white flux.

Extraction:
To separate one substance from others by using solvents.

Extract of Lead:
Impure lead acetate ($\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2$).

Extract of Mars:
Solid ferrous tartrate ($\text{FeC}_4\text{H}_4\text{O}_6$).

Extravasation:
The escape of an organic fluid (e.g., blood, sap) from its proper vessels into surrounding tissues.

F

Faints:
The second identifiable, thin, and light liquid fraction from distillation.

Fearce:
To pulverize or mascerate.

Febrifugal Salt:

Potassium sulphate (K_2SO_4).

Febrifugal Salt of Sylvius:
Potassium chloride (KCl).

[A] Ferment:
A substance actually fermenting, inclined to ferment, or used to cause fermentation, e.g., yeast.

Fetid Oil:
Any oil substance that was empyreumatic, i.e., had the odor of burned animal matter.

Filtration:
To separate a liquid from a particulate solid by passing the liquid through a porous material, e.g., cloth or paper.

Finery Cinder:
Iron oxide (Fe_3O_4).

Fire Air (Scheele)
Oxygen (O_2).

Fixed Air:
Carbon dioxide (CO_2).

Fixed Alkali (Soda):
Sodium carbonate (Na_2CO_3).

Fixed Alkali Salt:
Solid potassium carbonate (K_2CO_3).

Fixed Ammoniac (Fixed Sal Ammoniac):
Calcium chloride ($CaCl_2$).

Fixed Nitrate:
Usually potassium carbonate; sometime potassium sulfate (K_2CO_3 ; K_2SO_4).

Fixed Sulphur of Antimony:
Oxides of antimony, probably primarily the trioxide (Sb_2O_3) which forms when antimony ore (Sb_2S_3) is heated in air. Antimony calx.

Fixed Vegetable Alkali:
Potassium carbonate (K_2CO_3).

Fixity:
The degree of solidity of a substance as measured by the ability of that substance to resist the action of fire. The opposite of volatility.

Flores:
See Flowers.

Flores ac Vitrum Antimony:
Probably antimony trioxide (Sb_2O_3) with small amounts of antimony trisulfide (Sb_2S_3).

Flores Antim:
See Flowers of Antimony.

Flores Benzoini:
Benzoic acid (C_6H_5COOH).

Flores Martiales (Ens Veneris):
Impure ammonium chloride (NH_4Cl). Also includes iron filing used in the reaction, with possibly some chlorides of iron.

Flores Sulfurous:
See Flowers of Sulfur.

Flores Viridis Aeris:
Crystallized cupric acetate ($Cu(C_2H_3O_2)_2$).

Flores Zinc:
See Flowers of Zinc.

Flowers (Flores)
Any solid product of sublimation. Usually a powder.

Flowers of Antimony:
Antimony trioxide (Sb_2O_3).

Flowers of Arsenic (White Arsenic):
Arsenious oxide (As_2O_3).

Flowers of Benjamin:

See Flowers of Benzoin.

Flowers of Benzoin:
Benzoic acid (C_6H_5COOH).

Flowers of Phosphorus:
Volatile oxides of phosphorous (P_2O_3 ; P_2O_5).

Flowers of Sulfur:
Sublimed and condensed sulfur vapors (S).

Flowers of Zinc:
Volatile zinc oxide (ZnO).

Flour (as adjective):
Flowing, an adjective indicating that the substance cannot be made solid, e.g., flour volatile alkali; or, in referring to a mineral, a solid that is easily fusible.

Flour Acid Air:
Silicon fluoride (SiF_4).

Fluorspar:
Calcium fluoride (CaF_2).

Focus of a Furnace:
That part of a furnace where the fuel is actually burned.

Foliated Earth of Tartar:
Potassium acetate ($KC_2H_2O_2$).

Fossil:
Any mineral substance.

Fossil Alkali:
Sodium carbonate (Na_2CO_3).

Fossil Cadmia:
A cobalt mineral, probably cobaltite ($CoAsS$).

Fossil Oil:
Clear, distilled crude oil.

Frigorific
Having property of producing cold.

Focus:
A substance which can act as a (usually opaque) surface coloring agent.

Fulginosity:
Soot or any black deposit from flames of oily substances.

Fulmination:
Any very rapid reaction which produces heat, light, and noise; e.g., explosions.

Fuming Liquor of Boyle:
Ammonium polysulfide ($(NH_4)_2S_y$).

Fuming Liquor of Libavious:
Stannic chloride solution ($SnCl_4$).

Fusion
The changing a solid body to a liquid by the action of fire.

G

Galena
Lead sulfide (PbS).

Galley
A type of furnace in which several vessels are heated side by side simultaneously.

Galls
Parasitic growths, commonly found on oaks, which, when dried, ground, and dissolved were useful indicators for iron.

Gentle Calx of Lead
Lead nitrate ($Pb(NO_3)_2$).

German Ash
Potassium carbonate (K_2CO_3).

German Potash

Probably a mixture of potassium carbonate and oxide.

German Vitriol
An ore with both copper and ferrous sulfates (CuSO_4 , FeSO_4).

Galacial Oil of Antimony (Butter of Antimony)
Antimony trichloride (SbCl_3).

Glass of (A Substance)
The fused form of the substance, especially if semitransparent.

Glass of Antimony
Probably antimony oxysulfate ($\text{Sb}_2\text{O}_2\text{SO}_4$). Prepared by fusion of antimony sulfide, antimony, and an oxide of antimony.

Glass of Borax
Fused borax.

Glass of Lead
Any fused lead compound (especially ceruse, minium, or litharge).

Glauber's Alkahest (Alkahest of Van Helmont)
Concentrated potassium carbonate solution ($\text{K}_2\text{CO}_3(\text{aq})$).

Glauber's Sal Ammoniac
Ammonium sulphate ($\text{NH}_4)_2\text{SO}_4$).

Glauber's Spirit of Nitre
Fuming nitric acid (HNO_3).

Globuli Martiales
Iron powder boiled in cream of tartar solution. Presumably contains some ferrous tartrate ($\text{FeC}_4\text{H}_4\text{O}_6$). A pharmaceutical preparation of iron.

Glucinum
Beryllium (Be).

Golden Spirit of Sulphur
Ammonium sulphide ($(\text{NH}_4)_2\text{S}$).

Graves
The residue left after extracting oils from animal fat by means of heat and moderate pressure.

Gravid
Heavy or dense.

Green Vitriol (Vitriol of Mars)
Ferrous sulfate (FeSO_4).

Grume(s) (Grumous)
(1) Viscous, clotty; (2) heap(s), clusters.

Guaic (Guyac, Guacium)
A tropical wood sometimes used for the resinous extract of that wood.

Gum
Resinous or musiliginous extracts from plants, shrubs, or trees.

Gum Acacia
Like gum arabic, but thought to be distinguishable from it; the dried resinous exudation of certain varieties of the acacia tree.

Gum Arabic
The dried exudation of certain varieties of the acacia tree.

Gum Benzoin
The dried resin of the tree *Styrax benzoin*.

Gum Dragon
See Gum Tragacanth.

Gum Lac
Dark-red resinous incrustation produced in certain trees by the insect *Carteria lacca*. When refined by certain processes it becomes "shell-lac" or "shellac."

Gum Tragacanth (Gum Dragon)
Dried gummy exudation of the tree *Astragalus gummifer* and related species.

Gypseous Earths
Used for both gypsum or the "earth" contained in it, i.e., calcium oxide. Sometimes the oxide was confused with carbonate as the "earth" of gypsum.

Gypseous Substances

Solid substances which (a) are not soluble in acids, (b) are not hard enough to strike fire from steel, (c) when mixed with water may form a paste which hardens into a solid, and (d) becomes powdery when exposed to fire.

Gypsum

Calcium sulfate dihydrate ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$).

H

Halitus

Matter in a very subtle form, as a "vapor" or "exhalation." Like these, a "halitus" was often hypothesized if a phenomenon was ascribed to material causes, but no material could be detected by known means.

Hartshorn (Hart's Horn)

Ideally, the horn of the male European red deer, but the horns of other deer species were acceptable substitutes.

Hartshorn Calcined to Whiteness

Hartshorn subjected to heat over a long period and developing into a white substance.

Hartshorn Prepared Philosophically

Much like hart's horn calcined to whiteness, but usually with less heat and for a longer period.

Head

The upper part of a distillation apparatus. Also, the bulb or other enlargement at the end of a tube.

Heavy Carburetted Hydrogen

Ethylene (C_2H_4).

Heavy Earth

Barium oxide (BaO). Also barium hydroxide and barium carbonate.

Heavy Inflammable Air

Used at various times for (a) carbon monoxide (CO), (b) water gas (a mixture of H_2 and CO), or (c) methane (CH_4).

Heavy Spar

Barium sulfate (BaSO_4).

Hellebore

A plant of the genus *Helleborus*. Usually *Helleborus niger*, the so-called "Christmas rose." The poisonous extract was used in dilute preparations as a medicinal in the 17th and 18th centuries.

Hemlock

The vulgar name for the poisonous plant *Conium maculatum* and/or its extract.

Henna

The plant *Lawsonia inermis*. The dried and powdered shoots and leaves were used as a dye or, with suitable medium, a cosmetic.

Hepar Antimonii

Antimony trisulfide (Sb_2S_3).

Hepar Calcis

Calcium sulfide (CaS).

Hepars

Sulfides ($-\text{S}^{2-}$)

Hepar Sulphuris (Liver of Sulphur)

Produced by heating potassium carbonate with sulphur. Not a true compound, it was a metastable mixture of potassium polysulfides and sulfate (K_2S , K_2S_2 , K_2S_3 , K_2S_4 , K_2S_5 , K_2SO_4).

Hepatic Air

Hydrogen sulfide gas (H_2S).

Hessian Crucible

A type of crucible made in Hesse, Germany, of a mixture of native clay and fine sand. Such crucibles were noted for being able to withstand sudden changes in temperature.

Homberg's (Sedative) Salt

Boric acid (H_3BO_3 (ortho); $\text{H}_2\text{B}_4\text{O}_7$ (tetra)).

Horn (Corneous) Lead

Lead chloride (PbCl_2).

Horn Mercury

Chloride of mercury (HgCl_2 ; Hg_2Cl_2).

Horn Silver (Luna Cornea)

Fused silver chloride (AgCl).

Horn Tin

Stannous chloride (SnCl_2).

Hungarian Vitriol

Usually ferrous sulfate (FeSO_4) but also used for copper sulfate (CuSO_4).

Hydromel

Mixture of honey and water, usually in equal proportions. Ferments into "mead."

I

Iceland Spar (Calcite)

A particular crystal form of calcium carbonate (CaCO_3).

Icy Butter

Antimony chloride (SbCl_3).

Imbibition

To soak or saturate with a liquid.

Infernal Stone

An alkali hydroxide (NaOH , KOH). [Not to be confused with the French term pierre infernale.]

Inflammable Air

Usually hydrogen (H_2), though the usage is not constant among Priestley, Watt, Lavoisier, or Berthollet. Sometimes carbon monoxide (CO).

Inflammable Air from Metals

Hydrogen (H_2).

Infusion

The extraction of chemical substances by soaking them in a solvent, usually water. Sometimes boiling water was poured on a mixture of substances and then allowed to cool in order to aid the extraction; but if the heat were used, the temperature could not exceed that of boiling water.

Insolation

Digestion in which the heat was supplied by the sun rather than a furnace.

Inspissate

To thicken or condense.

Intermediate Salt of the Ley of Blood

Potassium ferrocyanide ($\text{K}_4\text{Fe}(\text{CN})_6$).

Intermediate Salts

Usually normal salts; occasionally acid salts.

Intermedium

Any reagent or reactant believed to be necessary for a reaction but which does not always appear on the product.

Intumescence

The process of swelling up.

Ipecacuanha

A preparation from the root of the South American plant *Cephaelis Ipecacuanha*.

Iron Ochre

A mixture of silica, clay, and various oxides of iron. In red ochre the oxide is simple Fe_2O_3 ; in yellow ochre it is $\text{Fe}_2\text{O}_3 \cdot \text{H}_2\text{O}$.

Iron Vitriol

Ferrous sulphate (FeSO_4).

Isinglass

In the first half of the eighteenth century a gelatinous substance extracted from the air-bladders of certain fish. Later, a synonym for sheet mica.

Ivory-Black

A black pigment prepared by the calcination of ivory in a closed vessel.

J

Jalap

A powder from the dried roots of the Mexican plant *Exogonium purga*. Used as a purgative.

James' Powder

A powder prepared by Dr. Robert James (1703-1776) that was used to reduce fevers.

Japanning

The coating of an object with a very dark varnish. The original varnish came from Japan, but substitutes were later found.

Jove (of Jove)

Tin, or some compound or alloy of tin.

K

Kali

The plant *Salsola kali* or glasswort from which, oddly enough, "mineral" alkali (sodium carbonate) was extracted by calcination. Also sometimes used for crude sodium carbonate.

Kaolin

A fine, white clay used in the manufacture of porcelain.

Kelp

Impure soda (Na_2CO_3) from seaweed. In Britain, the term was sometimes used for crude sodium carbonate from any source.

Kermes Mineral

A natural mixture of antimony oxide or a mixture obtained in the laboratory by the actions of potassium carbonate on antimony sulphide.

L

Lac (Laque)

A relatively thick solution of a colorant or coating.

Lac Sulphuris

See milk or sulphur.

Lapis Calaminarius (Calamine)

Mineral form of Zinc Carbonate (ZnCO_3)

Lapis Haematites

Hematite (Fe_2O_3)

Lapis Infernalis

Fixed vegetable alkali, I., potassium carbonate (K_2CO_3)

Lapis Philosophorum

A mixture of fused alum, vitriol, bolus, cerussa, camphor, vinegar.

Lapis Ponderous

Calcium tungstate (CaWO_4)

Lapis Septicus

Potassium hydroxide (KOH)

Lapis Serpentin

A mineral chiefly characterized by the presence of hydrous magnesium silicate ($\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$)

Laque

See Lac.

Laudanum

Any medicinal preparation with opium as a primary ingredient.

Lead-Glance

Lead sulphide (PbS)

Ley of (Ox-) Blood

The lixiviate from the residue produced by igniting blood with potashes.

Ley of Soapboilers

Potassium hydroxide (KOH)

Light Carburetted Hydrogen

Marsh gas or methane (CH_4)

Light Inflammable Air

Hydrogen (H_2)

Lignum Nephriticum

Two distinct woods were known as lignum nephriticum: (1) the small Mexican tree or shrub *Eysenhardtia polystacha* and the large Philippine tree *Pterocarpus indica*. In the sixteenth, seventeenth, and early eighteenth centuries, cups, powders, and dried extracts of this wood were thought to have a great medicinal powers. The infusion was fluorescent.

Lignum Vitae

"Tree of Life" The wood, and sometimes the resin, of several semitropical trees, but most often referring to *Guaiaacum*.

Limation

Filing on a metal piece to reduce it to filings. Sometimes used for simply polishing an object.

Lime

Calcium oxide (CaO).

Lime, Carbonate of

Calcium carbonate (CaCO₃)

Lime, Quick

Calcium oxide (CaO)

Lime, Slaked

Limestone

Calcium carbonate (CaCO₃)

Lime Water

A solution of calcium carbonate (CaCO₃)

Liquescent (Salts)

See Deliquescence.

Liquor Fumans Boyle (Spiritus Fumans Boyle)

Ammonium polysulphide ((NH₄)₂S₂; (NH₄)₂S₅).

Liquor Fumans Libavh (Fuming Liquor of Libavius)

Stannic chloride (SnCl₄).

Liquor of Flints

See Liquor Silicum.

Liquor Hoffman

A mixture of ethanol and ether.

Liquor of Liravius

See smokin' spirit of Libavius.

Liquor Silicum (Liquor of Flints)

A solution of potassium silicate (K₂ SiO₃). Sometimes Used for other soluble silicates.

Litharge

Yellow lead oxide (PbO)

Lithomarge

Soft, claylike substances, such as kaolin.

Litmus

A blue pigment, extracted from certain lichens. It is acid sensitive, turning red in the presence of an acid. The red form turns blue again when a base is added.

Liver of Antimony

Fused antimony sulfide (Sb₂S₃). Usually produced from the detonation of equal parts of crude antimony and potassium nitrate.

Liver of Arsenic

Fused mixture of potassium carbonate and (white) arsenic. May have contained some potassium arsenate.

Liver of Sulphur (Hepar Sulphuris)

Produced by heating potassium carbonate with sulphur. Not a true compound, it is a metastable mixture of potassium polysulfides and sulfate. (K₂S, K₂S₂, K₂S₃, K₂S₄, K₂S₅, K₂SO₄)

Lixivial Salts

Salts prepared by lixiviations.

Lixivate of Mars

Possibly a tincture of iron, of which there were many different preparations. Typically, these were solutions of salts of iron to which rectified spirit of wine (ethanol, (CH₃CH₂OH) was added.

Lixiviation

Separation of soluble from insoluble solid substances by soaking the mixture of solids and removing the resulting solution which contained the soluble material.

Lixivium

A solution produced by lixiviation. Sometimes used as a general synonym for "Solution"

Lixivium of Tartar

A solution of potassium carbonate (K_2CO_3)

Load (Load)

Any ore.

Logwood

The American tree *Haematoxylon Campechionum*, used in dyeing. It produces dark shades: blacks, blues, and dark grays.

Lucillite

A variety of limestones.

Lunar Cornea

Fused silver chloride ($AgCl$).

Lunar Caustic

Fused silver nitrate ($AgNO_3$).

Lunar Crystals

Finely divided parts of silver nitrate ($AgNO_3$). In preparing these crystals great care was taken to use only the purest silver and nitric acid possible.

Lunar Nitre

Silver nitrate ($AgNO_3$).

M

Mageration

The softening and weakening of a solid sample, even to the point of partial decomposition, by soaking it in a liquid.

Magisterium Tartari Vitriolati

Probably potassium sulfate (K_2SO_4).

Magistry of (any substance)

A precipitate of any substance, i.e., a pure form of the substance which has been separated by precipitation.

Magistry of Bismuth

Basic bismuth nitrate ($BiNO_3 \cdot H_2O$); sometimes the oxide (BiO) or even the oxychloride ($BiOCl$).

Magistry of Coral

Calcium carbonate ($CaCO_3$).

Magistry of Sulfur

Precipitated milk of sulphur (S).

Magistry

Any substance prepared from the basic elements of the substance without impurities. A magistry was supposed to be closer to the ideal for a substance than was usual for real chemical preparations.

Magnesia

Magnesium carbonate ($MgCO_3$). [Modern magnesia = magnesium oxide (MgO)]. Some chemists called magnesium (Mg) by the name magnesia.

Magnesia Aerata

Magnesium carbonate ($MgCO_3$).

Magnesia Alba

Magnesium carbonate ($MgCO_3$).

Magnesia Nigra

Manganese dioxide (MnO_2).

Magnesia Salita

Magnesium chloride ($MgCl_2$).

Malachite

Basic copper carbonate ($CuCO_3 \cdot Cu(OH)_2$).

Malic Acid

An acid extracted from apples and various other fruits. Pure malic acid is $C_4H_6O_5$.

Malt

Barley or other suitable grains after a preparation for brewing or distilling that usually included soaking, germination, and drying.

Manganese

Manganese dioxide (MnO_2). Manganese as we know it was called reglus of manganese.

Manna Mercurii

Mercurous chloride (Hg_2Cl_2).

Marble

A hard, crystalline, mineral form of calcium carbonate ($CaCO_3$).

Marcasita Plumbea

Antimony (Sb).

Marcasites

Minerals similar in appearance or properties to iron pyrites (FeS_2). Later, a general term for pyrites. Sometimes the term was used for sulfides of arsenic (As_2S_2 , As_2S_3 , As_2S_5).

Marchpane

See Marzipan.

Marine Acid

Hydrochloric acid (HCl).

Marine Acid Air

Hydrogen chloride (HCl).

Marine Alkali

Sodium carbonate (Na_2CO_3).

Marl (Marle)

A loose soil of clays and calcium carbonate ($CaCO_3$).

Mars (of Mars)

A substance related in some way to iron.

Marsh Gas

Methane (CH_4).

Martial Balls

A mixture of iron fillings (Fe) and cream of tartar ($KHC_4H_4O_6$).

Martial Ethiops

Hydrated ferrosferric oxide ($Fe_3O_4 \cdot xH_2O$).

Martial Extract

Concentrated tincture of mars. A concentrated solution, the chief component of which may have been ferrous hydroxide ($Fe(OH)_2$).

Marzipan

A confection of pounded almonds, sugar, and other ingredients.

Matrass

A vessel with a round bottom and long, slender neck. Used as part of several common types of distillation apparatus.

Menstruum

A solvent.

Mephitic (as adjective)

Noxious; poisonous or pestilential.

Mephitic Acid

Carbonic acid (H_2CO_3).

Mephitic Air

Carbonic acid (CO_2).

Mercurius Calcinatus

Mercuric oxide (HgO).

Merc. Calcin. Nitrat

Mercuric nitrate ($Hg(NO_3)_2$).

Mercurius Corrosivus

Mercuric chloride $HgCl_2$.

Mercuric Corrosivus Ruber
Mercuric oxide (HgO).

Mercurius Dulcis (Calomel, Mercurius Sublimatus Dulcis, Mild Mercury)
Mercurous chloride (Hg₂Cl₂).

Mercurius Praecipitatus Per Se
Mercuric oxide (HgO).

Mercurius Praecipitatus Ruber
Mercuric oxide (HgO).

Mercurius Solubilis Hahnemanni
Mercuric oxide (Hg₂O).

Mercurius Sublimatus Dulcis (Calomel, Mercurius Dulcis, Mild Mercury)
Mercurous chloride (Hg₂Cl₂).

Mercurius Sublimatus Rubeus non Corrosivas
Mercuric oxide (HgO).

Mercurius Vitae
Mixture of antimony oxychloride and antimony oxides (Sb₂O₃; Sb₂O₄, Sb₂O₅, SbOCl). In some contexts the term may mean just antimony oxychloride (SbOCl).

Mercurius Vitae Antimonii
Mixture of antimony oxychloride and antimony oxide (Sb₂O₃; Sb₂O₅, SbOCl).

Mercury of Life
See Mercurius Vitae.

Metallic Salt
Compound of a metal and an acid.

Miasma (Miasmata)
A noxious or infectious subtle material (e.g., a vapor or exhalation) thought to be from decaying organic matter. Sometimes used for any unseen poisonous or infectious substance.

Mica
A mixed mineral form composed mostly of aluminum silicate but with silicates of other metals. Several complicated minerals are variously, and in combination, referred to as mica; e.g., biotite K(Mg, Fe)₃AlFeSi₃O₁₀(OH, F)₂.

Microcosmic Salt
Sodium ammonium phosphate (NaNH₄HPO₄ · 4H₂O).

Mild Alkali
Alkalies which produce effervescence with acids; i.e., carbonates (-CO₃²⁻)

Mild Calcareous Earth
Calcium carbonate (CaCO₃).

Mild Magnesian Earth
Magnesium carbonate (MgCO₃).

Mild Mercury
Mercurous chloride (Hg₂Cl₂).

Mild Vegetable Alkali
Potassium carbonate (K₂CO₃).

Milk of Lime
Calcium hydroxide (suspension) (Ca(OH)₂).

Milk of Sulfur
Finely divided sulfur (S) in solution. Usually the product of the reaction between a soluble sulfide and an oxidizing acid.

Minderer's Spirit
A solution of ammonium acetate (NH₄C₂H₃O₂).

Mineral Alkali
Sodium carbonate (Na₂CO₃).

Mineral Anodyne of Hoffman (Liquor of Hoffman)
A mixture of ethanol and ether (C₂H₅OH), (CH₃CH₂OCH₂CH₃).

Mineral Crystal
Sal prunella = potassium nitrate with a small admixture of potassium sulfate (HNO₃; K₂SO₄).

Minium (Red Lead)

Lead tetroxide (Pb_3O_4).

Mixt
A chemical union of two or more true "elements" or "principles." Later, any substance which could be resolved into constituent parts only by chemical means. Although the term has greater philosophical complexities, it was roughly equivalent to our term "compound," but the latter is not to be considered a synonym.

Mixtura Salina
Saline mixture prepared by saturating potassium carbonate with lemon juice and adding syrup of black currants, julep.

Mofette
An exhalation or vapor of a mephitic (noxious or poisonous) gas.

Mohr's Salt
Ferrous ammonium sulfate ($\text{FeSO}_4((\text{NH}_4)_2\text{SO}_4 \cdot 6\text{H}_2\text{O})$).

Molybdaena
Native molybdenum sulfide (MoS_2).

Mordant
Any substance which fixes or holds a colorant in the material to be dyed.

Mortify
To change or destroy the normal, external form or appearance of a substance.

Mosaic Gold
Stannic sulfide (SnS_2).

Mucilagenous Matter
Any semisolid material that was soft, moist, and viscous.

Mundic (Mundick)
Iron pyrites (FeS_2). Sometimes used for other pyrites or as a general term for pyrites.

Muriates
Chlorides ($-\text{Cl}^-$).

Muriatic Acid
Hydrochloric acid (HCl).

Muriatic Ether
Probably impure ethyl chloride ($\text{CH}_3\text{CH}_2\text{Cl}$).

N

Naples Yellow
Lead antimoniate ($\text{Pb}_3(\text{SbO}_4)_2$).

Naptha
Any highly inflammable, volatile, naturally occurring mixture of hydrocarbons. Also could be obtained as the "lightest" fraction in the distillation of asphalts, bitumens, and petroleum.

Natrium
Sodium.

Natron (Natrum)
Sodium sesquicarbonate, a naturally occurring combination of sodium carbonate (Na_2CO_3) and sodium bicarbonate (NaHCO_3) in the ratio 1:1 ($\text{Na}_2\text{CO}_3 \cdot \text{NaHCO}_3 \cdot 2\text{H}_2\text{O}$).

Neutral Arsenical Salt of Macquer
Potassium dihydrogen arsenate (KH_2AsO_4).

Neutral Salts
Salts resulting from the reaction of an acid and a base (hydroxide) but having no characteristics of either acid or base.

Nihil Album (sometimes just Nihil)
Flowers of zinc, zinc oxide (ZnO).

Nitrated Earths, Metals, etc.
Nitrates ($-\text{NO}_3$).

Nitre (Common Nitre)
Potassium nitrate (KNO_3).

Nitre Fixed by Tartar
A mixture of nitre and tartar left after reaction between the two.

- Nitre with an earthy base
Usually calcium nitrate ($\text{Ca}(\text{NO}_3)_2$).
- Nitreum (Bergman)
Nitrous acid (HNO_2).
- Nitro-Aerial Spirit
The hypothetical subtle substance which was thought by some to be responsible for the ability of nitre to support combustion and to be a key component of detonations
- Nitrous Acid
Nitrous Acid (HNO_3).
- Nitrous Acid Vapor (Priestly)
Nitrogen Dioxide (NO_2).
- Nitrous Air (Priestly)
Nitric Oxide (NO)
- Nitrous Ether
Ethyl nitrite ($\text{CH}_3\text{CH}_2\text{NO}_2$).
- Nitrous Gas (Lavoisier)
Nitric Oxide (NO)
- Nitrum Aegypticum
Sodium Carbonate (Na_2CO_3).
- Nitrum Antimoniatum
Product containing potassium nitrate, nitrite, and antimonate.
- Nitrum Commun
See common Nitre
- Nitrum Cubic
See Cubic Nitre
- Nitrum Fixatum (Nitrum Fixum, Fixed Nitre)
An often impure preparation of potassium carbonate (K_2CO_3).
- Nitrum Flammans
Ammonium Nitrate (NH_4NO_3).
- Nitrum Regeneratum
Potassium nitrate (KNO_3).
- Nitrum Saturni
Lead Nitrate ($\text{Pb}(\text{NO}_3)_2$).
- Nitrum Stibnatum
Probably antimony nitrate ($2\text{Sb}_2\text{O}_3 \cdot \text{N}_2\text{O}_5$).
- Nitrum Sulphure Purgatum
Mixture of potassium nitrate and potassium sulfate (KNO_3 ; K_2SO_4).
- Nitrum Vitriolatum
Mixture of potassium nitrate and potassium bisulfate (K_2SO_4 ; KHSO_4).
- Non Metals
A term used by William Cullen and his students for the following group of substances; zinc (Zn), antimony (Sb), bismuth (Bi), arsenic (As), platinum (Pt), cobalt (Co), nickel (Ni).

O

- Ochre
A class of mineral solids which, in powdered form, were commonly used as pigments. Their colors varied from yellow to brown, including reddish hues. Chemically, the ochres are iron oxides, or mixtures of iron oxides, in varying states of hydration. For example red ochre is primarily Fe_2O_3 . Silicates, carbonates, sulfates, etc. also were commonly present with these oxides.
- Ochroite
Cerium Oxide (CeO_2).
- Offa Helmonth
Potassium Carbonate (K_2CO_3).
- Oil
Any relatively insoluble, inflammable, somewhat viscous liquid.

- Oil Gas
Mixture of methane, carbon monoxide, and butylene (CH_4 , CO , C_4H_8).
- Oil of Arsenic
Arsenic trichloride (AsCl_3)
- Oil of Chalk
Calcium chloride solution (CaCl_2).
- Oil Cloves
An oily substance extracted from the buds and flower stalks of the clove tree *Caryophyllus aromaticus*. Used as medicinal
- Oil of Dippel
The insoluble, viscous fraction from decomposed animal matter that has gone through repeated distillations.
- Oil of Hartshorn
A crude animal oil obtained from the destructive distillation of bones
- Oil of Lime
A solution of calcium chloride (CaCl_2).
- Oil of Rue
The oil extracted from evergreens of the genus *Ruta*. Used as Medicinal
- Oil Sulphur
Concentrated sulfuric acid. Sometimes the term was used for alkaline sulphide of ammonia ($\text{NH}_4)_2\text{S}$).
- Oil of Tartar
Concentrated potassium carbonate solution (K_2CO_3).
- Oil of Tartar per Deliquium
Potassium carbonate, which is hygroscopic, dissolved in the water which it extracts from the air.
- Oil of Venus
Concentrated solution of copper nitrate ($\text{Cu}(\text{NO}_3)_2$).
- Oil of Vitriol
Sulfuric Acid (H_2SO_4).
- Oil of Wine
A hypothetical component of alcohol thought to give it its odor and inflammability
- Olea Terebinthina
terpentine
- Olefiant Gas
Ethylene (C_2H_2).
- Oleum Dulce
See Oil of Whine
- Oleum Sulphuris per Campanum
Sulfuric Acid (H_2SO_4) prepared by burning sulfur under a bell jar and later concentrating and purifying the product by heating to drive off water and sulfur dioxide.
- Oleum Succini
Concentrated succinic acid ($\text{HOOCCH}_2\text{CH}_2\text{COOH}$).
- Oleum Tartar per Deliquium
See Oil of Tartar per Deliquium
- Oleum Vitriol
Oil of Vitriol
- Orpiment
arsenic trisulfide (As_2S_3).
- Oxycarbonated Hydrogen
Water gas mixture or hydrogen (H_2), carbon monoxide, (CO), and carbon dioxide (CO_2).
- Oxymuriatic Acid
Chlorine (Cl_2).

P

- Panacea
Potassium sulfate (K_2SO_4).

Pan-Stone
Calcium sulfate (CaSO_4).

Parting
The operation by which gold and silver are separated from each other.

Pearl Ash
The whitest potassium carbonate (K_2CO_3) extracted from calcined plants. In a sense, then, pearl ash is purified potash.

Pearl White
Bismuth oxychloride [BiOCl].

Pelican
A special distillation apparatus. The condensing head had two curved tubes emerging on opposite sides. These tubes led down and entered the lower section or body of the vessel; thus, the condensed liquid ran back to the heated section where it was revaporized, giving a cyclic action. The pelican was especially effective for reactions that took place in the vapor phase.

Pellicle
Any thin saline crust that forms on a solution.

Per Campanum
Any process carried out under a solution.

Per Deliquium
A hygroscopic salt was said to "run per deliquium" when it changed from solid to liquid by extracting water from the air.

Perlate Salt
Sodim phosphate (Na_3PO_4).

Perspiration
Spontaneous evaporation or (less often) vaporization through heating. Also used to indicate condensation of moisture on a relatively cool body.

Perspirative
A medicinal which promoted perspiration.

Petrolia
Liquid bitumens.

Petunise
A white mineral solid used in the manufacture of porcelain.

Pewter
An alloy of tin. Originally with up to one-fifth lead, but later bismuth and copper were substituted for lead.

Philosopher's Wool
Zinc Oxide (ZnO).

Philosophical Flowers of Vitriol
Boric acid (H_3BO_3).

Philosophical Foliated Earth
Potassium acetate ($\text{KC}_2\text{H}_3\text{O}_2$).

Philosophical Mercury
An alchemical term signifying the property-bearing principle of chemical activity.

Philosophical Sal Ammoniac
Ammonium sulfate ($(\text{NH}_4)_2\text{SO}_4$).

Philosophical Spirit of Nitre
Nitric acid prepared by distilling saltpeter with oil of vitriol (HNO_3).

Philosophical Spirit of Tartar
Potassium hydrogen tartrate ($\text{KHC}_4\text{H}_4\text{O}_6$) distilled with wine.

Philosophical Spirit of Vitriol
Hydrochloric acid (HCl).

Philosophical Spirit of Wine.
Spirit of wine (alcohol) concentrated by freezing ($\text{CH}_2\text{CH}_3\text{OH}$).

Philosophical Water
Aqua regia. A solution of hydrochloric and nitric acids, usually in ratios from 2:1 to 4:1 (HCl to HNO_3).

Phlegm

A general term for any aqueous fraction of a distillation.

Phlogisticated Acid of Nitre

Nitrous acid (HNO_2).

Phlogisticated Acid of Vitriol

Sulphurous acid (H_2SO_3).

Phlogisticated Air

Nitrogen (N_2).

Phlogisticated Alkali

Potassium ferrocyanide ($\text{K}_4\text{Fe}(\text{CN})_6 \cdot 3\text{H}_2\text{O}$).

Phlogisticated Calx of Iron

Ferrous oxide (hydroxide) (FeO).

Phlogisticated Earth of Molybdaena

The solid reduction of molybdic acid.

Phlogisticated Manganese

Manganous carbonate (MnCO_3).

Phlogisticated Nitre

Impure potassium nitrite (KNO_2).

Phlogisticated Nitrous Acid

Nitrous acid (HNO_2).

Phlogisticated Vitriolic Acid

Sulfurous acid (H_2SO_3).

Phlogiston

A hypothetical substance originally used to account for the property of inflammability. It later was made to carry many more properties and formed a central point for the theoretical beliefs of a number of eighteenth-century chemists.

Phlogiston Elasticum

Hydrogen (H_2).

Phosphorated Iron

Ferric phosphate (FePO_4).

Phosphorated Mercury

Mercuric phosphate ($\text{Hg}_3(\text{PO}_4)_2$).

Phosphorated Vegetable Alkali

Potassium phosphate (K_3PO_4).

Phosphorous

Sometimes used for any phosphorescent substance.

Phosphorous of Baldwin

Calcium nitrate ($\text{Ca}(\text{NO}_3)_2$).

Phosphorous of Homberg

Calcium chloride (CaCl_2).

Phosphorous of Urine

As the name implies, a form of phosphorous (P) extracted from urine.

Pierre Infernale

Fused silver nitrate (AgNO_3). [Not to be confused with "Infernal Stone."]

Pinch Beck

A gold colored alloy of about five parts copper (Cu) to one part zinc (Zn).

Pinguious (Pinguinous)

Fatty, oily

Plaster

Any semisolid plastic mixture that could be applied to a surface and then spontaneously cured or hardened. One of the oldest plasters is a mixture of slake lime ($\text{Ca}(\text{OH})_2$), sand, and hair. The term also was used to refer to impure lead oleate ($\text{Pb}(\text{C}_{18}\text{H}_{33}\text{O}_2)_2$).

Plaster of Paris

Calcium sulfate monohydrate ($(\text{CaSO}_4)_2 \cdot \text{H}_2\text{O}$).

Platina

Platinum (Pt.), or sometimes the usually impure form of platinum found in nature that is alloyed with other exotic metals.

Plumbago

Carbon (C) in the form of graphite.

Plumbum Album

Basic lead carbonate ($2\text{PbCO}_3 \cdot \text{Pb(OH)}_2$). Sometimes the term was applied to basic lead acetate ($\text{Pb(C}_2\text{H}_3\text{O}_2)_2 \cdot \text{Pb(OH)}_2 \cdot \text{H}_2\text{O}$).

Plumbum Cinereum

Bismuth (Bi).

Plumbum Corneum (Horn Lead)

Lead chloride (PbCl_2).

Plumbum Stridens

Tin (Sn)

Pneumatic

Pertaining to subtle, rarified, or vaporous substances such as air. In modern terms, gaseous.

Pneumatic Trough

An apparatus developed over the eighteenth century from John Mayow (1641-1679) through Stephen Hales (1677-1761) to Antoine Lavoisier (1743-1794). The trough was any large pan or vat in which inverted bottles full of water could be supported. In glass tubes conducted the gases from the vessels in which they were generated outside the trough to the inverted bottle in the trough, where the gases were trapped and held.

Point of Saturation

The instant when the exact proportions of the two "saline principles" (one from an acid, the other from a base) unite to form a perfectly neutral salt.

Pomphlix

Flowers of zinc (ZnO).

Ponderous Spar

Barium Sulfate (BaSO_4).

Pot Ash

Potassium carbonate (K_2CO_3).

Powder of Algaroth

Antimony oxychloride (SbOCl)

Precipitant

A substance serving as intermediary to separate two other substances from each other.

Praecipitate Per Se

Mercuric Oxide (HgO).

Praecipitatus Albus

Mercurous chloride (Hg_2Cl_2).

Praecipitatus Vigonis

Mercuric Oxide (HgO).

Precipitate of Sulfur

Precipitated milk of sulfur (S).

Precipitation

The phenomenon in which a solid is formed within a solution and falls to the bottom of the vessel in which the solution was contained.

Primus Metal

See Prince Rupert's Metal

Prince Rupert's Metal (Bath Metal, Primus Metal, Princes Metal)

A brass metal alloy in which the ratios of copper (Cu) to Zinc (Zn) are approximately 4 to 1.

Prince's Metal

See Prince Rupert's Metal

Principle

One of the simplest forms of matter, from which other substances are formed through combinations with other principles or other combinations of principles. Although there are similarities to the modern term "element", the two are not truly synonymous.

Proximate Principles

Components obtained through the chemical analysis which themselves are compounds but presumed to be simpler than the original substance.

Prussian Blue

Ferric ferrocyanide ($\text{Fe}_4[\text{Fe}(\text{Cn})_6]_3$).

Prussian Acid

Hydrocyanic acid (HCN).

Pulvis Algarothi

Antimonious oxychloride (SbOCl).

Pulvis Fulminans

An explosive mixture made from potassium nitrate, potassium carbonate, and sulfur.

Pumice

A light porous stone of mixed silicates.

Pure Clay

Alumina. Aluminum Oxide (Al_2O_3).

Pure Ponderous Earth

Baryta. Barium Oxide. (BaO)

Purification

Any process in which one substance is rendered free, or relatively free, of other substance. Common methods included distillation, crystallization, and precipitation.

Pyrites

Originally, any mineral which could strike sparks from steel. The term was often used to refer iron pyrites (FeS_2).

Pyroligneous Acid

Crude acetic acid from wood ($\text{HC}_2\text{H}_3\text{O}_2$).

Pyroligneous Spirit

Methyl alcohol (CH_3OH).

Q

Quadrangular Nitre

Sodium Nitrate (NaNO_3).

Quartation

The process of combining gold (Au) and silver (Ag) in the ratio 1:3. When the combination is dissolved in nitric acid, the silver is dissolved and the gold is separated, free from impurities.

Quartz

A mineral whose primary component is silicon dioxide (SiO_2). Its color and other aspects of its appearance depended on the impurities present.

Quicklime

Calcium oxide (CaO).

Quicksilver

Mercury (Hg).

Quicksilver Calcined Per Se

Mercuric oxide (HgO).

Quintessence

A mixture of an essential oil and alcohol.

Quintessence of Lead

Acetone (CH_3COCH_3).

R

Rabel's Water

The liquid obtained by macerating poppy flowers in a mixture of sulphuric acid and alcohol for some days and then filtering.

Ramous

(1) Individual (fundamental) particles of viscous or rigid bodies; (2) branching or filament-like parts of a liquid mixture.

Realgar

Arsenic disulfide (As_2S_2).

Receiver

The vessel attached to the condensing part of a distillation apparatus in order to receive the condensed products from the distillation.

Recrement

Solid waste or refuse from a chemical operation, e.g., scoria.

Rectification

The purifying or refining of a substance by one or (usually) more distillations.

Red Arsenic (Realgar)

Native arsenic disulphide (As_2S_2).

Red Bole

A red clay that contained silicates of iron and aluminum. Used as a red pigment and as a base for gilding.

Red Flowers of Antimony

Probably antimony sulfide (Sb_2S_5).

Red Ochre

A mineral solid approximately 95 percent red iron oxide (Fe_2O_3). An old and important pigment.

Red Precipitate

See Red Precipitate of Mercury.

Red Precipitate of Mercury

Impure mercuric oxide (HgO).

Red Saunders (Red Sanders)

The wood from the tree *Pterocarpus santalinus*, commonly called red sandalwood. Used in dyeing.

Reductoin

The returning of a substance to a previous or original condition; e.g., the restoring of a metal to the metallic state from its oxide.

Refractory Earths

Mineral substances that do not fuse under the action of fire.

Refrigeratory

A vessel at the top or head of some stills that is surrounded by or filled with cold water to condense any vapors in tubes or vessels within it.

Regenerated Marine Salt

Potassium chloride (KCl).

Regenerated Sea Salt

Potassium chloride (KCl).

Regenerated Tartar

Potassium acetate ($\text{KC}_2\text{H}_3\text{O}_2$). In this form, the compound was made from distilled vinegar and salt of tartar.

Reguline Caustic

Potassium carbonate (K_2CO_3).

Regulus

The pure form of a metal, e.g., regulus of antimony.

Retory

A vessel with a long neck bent down at the point where it joins the body of the vessel. Especially suited for the distillation of substances under low heat.

Revivification

The restoration of a metal to the metallic state from one of its compounds. Similar to, but broader in scope, than "reduction."

Risigallum

See Rock Alum.

Rochelle Salt (Seignette Salt)

Potassium sodium tartrate ($\text{KNaC}_4\text{H}_4\text{O}_6 \cdot 4\text{H}_2\text{O}$).

Rock Alum

Usually larger crystals or formations of potassium aluminum sulfate ($\text{KAl}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$). Alum of this quality often was imported from Italy.

Rock-Crystal

Pure, colorless, transparent, crystalline quartz occurring naturally in large prismatic crystals.
Silicon dioxide (SiO₂).

Rog

Concentrated native vegetable acid. From the usual preparations, it would be primarily citric acid (C₆H₈O₇).

Roman Vitriol

Copper sulfate (CuSO₄). In Britain this term was sometimes used for ferrous sulfate (FeSO₄).

Russian Pot Ash

Potassium carbonate (K₂CO₃).

Rust of Copper

See Verdigris.

S

Saccharated Lime

Calcium oxalate (CaC₂O₄).

Saccharum Saturni

Lead acetate (Pb(C₂H₃O₂)₂).

Saffron

A range of orange-yellow colors. The color called saffron comes from the dye of the same name, which is an extract of the plant *Crocus sativus*.

Saffron of Gold.

See Aurum Fulminans.

Saffron of Iron.

See Saffron of Mars.

Saffron of Mars

Any yellowish iron compound, e.g., hydrated ferrous ferric oxide (Fe₃O₄ · xH₂O) or ferric sulfide (Fe₂S₃).

Saffron of Metal

A mixture of antimony sulfide (Sb₂S₃), nitre (KNO₃), and antimony sulfate (Sb₂(SO₄)₃).

Sal Absinthi (Salt of Wormwood)

Mostly potassium carbonate (K₂CO₃).

Sal Albus

Borax (sodium tetraborate) (Na₂B₄O₇ · 10H₂O).

Sal Alkali Vitriolatum

Potassium sulfate (K₂SO₄).

Sal Alkanus Vegetabilis

Potassium carbonate (K₂CO₃).

Sal Amarum

Magnesium sulfate (MgSO₄).

Sal Ammoniac (Sal Armoniac)

Ammonium chloride (NH₄Cl). Sometimes used for other ammonium salts.

Sal Ammoniacum Fixum

Calcium chloride (CaCl₂)

Sal Ammoniacum Volatilis

A term variously used for any salt solution that gave off the odor of ammonia. When referring to solid salts the term meant ammonium carbonate ((NH₄)₂CO₃).

Sal Anglicum (Epsom Salt)

Magnesium sulfate (MgSO₄).

Sal Catharticum

Magnesium sulfate (MgSO₄).

Sal Catharticum Amarum

Magnesium sulfate (MgSO₄).

Sal Catholicum

Potassium sulfate (K₂SO₄).

Sal de Duobus

Potassium sulfate (K₂SO₄).

Sal de Seignette (Sal de Soinette)
See Seignetteís Salt.

Sal Digestiv
Potassium chloride (KCl).

Sal di Modena
Magnesium sulfate (MgSO₄).

Sal Diureticus
Potassium acetate (KC₂H₃O₂).

Sal Duplicatum
Potassium sulphate (K₂SO₄).

Sal Enixum
Potassium sulfate (K₂SO₄).

Sal Epsom (Epsom Salt)
Magnesium sulfate (MgSO₄).

Sales Medii
See Sal Medium.

Sales Salsi
See Sal Salsam.

Sal gemme (Sal Gem)
Sodium chloride (NaCl).

Sal Gentianae
Mostly potassium carbonate (K₂CO₃).

Sal Glauber (Glauberís salt)
Sodium sulfate (Na₂SO₄).

Sal Guaiaci ex Ligno
Mostly potassium carbonate (K₂CO₃).

Saline Bodies (Cullen)
Substances which are (a) sapid, (b) miscible with water, and (c) noninflammable.

Salited Earths, Metals, etc.
Chlorides (Cl⁻).

Sal Juniperi
Mostly potassium carbonate (K₂CO₃).

Sal Kali (Sodium Carbonate)
Soda (Na₂CO₃).

Sal Marinus
Sea Salt; mostly sodium chloride (NaCl).

Sal Marinus Fontan
Sodium chloride (NaCl) as found in or near landlocked bodies of water.

Sal Marinus Regeneratus
Potassium chloride (KCl).

Sal Martis
Ferrous sulfate (FeSO₄).

Sal Medium (Sal Salsum) (Sales Medii)
Any neutral salt that would not precipitate solutions made with acid or alkaline slats and would not change the color of syrup of violets.

Salmiac
See Salt Ammoniac.

Sal Mirabile (Glauber's salt)
Sodium sulphate (Na₂SO₄).

Sal Nitriforme Inflammable
Probably ammonium nitrate ((NH₄)NO₃).

Sal Nitrii
Potassium nitrate (KNO₃).

Sal Perlatum
Sodium phosphate (Na₂PO₄).

Sal Polychrestum

- Potassium sulphate (K_2SO_4).
- Sal Polychrestrum Anglorum (Sal Polychrestrum Glaseri)
Potassium sulphate (K_2SO_4).
- Sal Polychrestrum de Rochelle
See Sal Polychrestrum de Seignette.
- Sal Polychrestrum de Seignette
Potassium sodium tartrate ($NaKC_4H_4O_6$).
- Sal Polychrestrum e Nitro et Sulphure
Potassium sulfate (K_2SO_4).
- Sal Polychrestrum Glaseri
Potassium sulfate (K_2SO_4).
- Sal Prunellae
A mixutre of potassium nitrate and potassium sulfate (KNO_3 ; K_2SO_4).
- Sal Rupellensis (Rochelle Salt)
Hydrated potassium sodium tartrate ($KNaC_4H_4O_6 \cdot 4H_2O$).
- Sal Salsam
Any neutral combination of an acid with alkali. (see also Neutral Salts, Sal Medium, or Salts.)
- Sal Sapiaentiae
Potassium sulfate (K_2SO_4).
- Sal Saturni
Lead acetate ($PbC_2H_3O_2$).
- Sal Sedivatus (Sedative Salt)
Boracic boric acid, (H_3BO_3).
- Sal Sennerti
Potassium acetate ($KC_2H_3O_2$).
- Sal Soda (Salt Soda, Soda)
Sodium carbonate (Na_2CO_3).
- Sal Succini (Salt of Amber)
Succinic acid ($HO_2CCH_2CH_2CO_2H$).
- Salt
In the 16th and 17th centuries this term denoted a group of solid soluble, noninflammable substances with characteristic tastes. In the 18th century salts gradually became to be thought of in terms of process, as, for example, the product of the reaction between acids and bases, acids and other salts, or between two salts, etc. Some chemists regarded acids and bases themselves as salts or at least some saline substances. In general, salts were increasingly recognized as the largest and most important class of substances as the eighteenth century progressed.
- Salt Alembroth
A mixture of equal parts of corrosive sublimate (mercuric chloride, $HgCl_2$) and sal ammoniac (NH_4Cl). Used as a flux for metals.
- Sal Tartari
Potassium carbonate (K_2CO_3). It usually was produced by strongly heating tartar.
- Salt Ash
Magnesium chloride ($MgCl_2$).
- Salt of Amber
Succinic acid ($C_4H_6O_4$).
- Salt of Art
See Salt Alembroth.
- Salt of Benzoin
Benzoic acid (C_6H_5COOH).
- Salt of Centaury
Solid residues obtained from the calcination of any of the plant species of the genus *Centaurea*.
- Salt of Chalk
Calcium acetate ($Ca(C_2H_3O_2)_2$).
- Salt of Colcothar
Probably impure ferric hydroxide ($Fe(OH)_3$).
- Salt of Coral

Calcium acetate ($\text{Ca}(\text{C}_2\text{H}_3\text{O}_2)_2$).

Salt of Crab's Eye
Calcium acetate ($\text{Ca}(\text{C}_2\text{H}_3\text{O}_2)_2$).

Salt of England
Ammonium carbonate ($(\text{NH}_4)_2\text{CO}_3$).

Salt of Epsom
See Epsom Salt.

Salt of Gall-Nuts
Tannic acid ($\text{C}_{76}\text{H}_{52}\text{O}_{46}$).

Salt of Glass
A mixture of the various salts found in raw materials used in glassmaking. These included fixed alkali (potassium carbonate), common salt (sodium chloride), Glauber's salt (sodium sulfate), vitriolate tartar (potassium sulfate), etc.

Salt of Hartshorn
Ammonium carbonate ($(\text{NH}_4)_2\text{CO}_3$).

Salt of Human Blood
A mixture of ammonium salts, including ammonium hydroxide (NH_4OH), and various organic solids.

Salt of Lead (Sugar of Lead) (Sal Saturn)
Lead acetate ($\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2$).

Salt of Lime
Calcium carbonate (CaCO_3) precipitated from limewater (calcium hydroxide solution, $\text{Ca}(\text{OH})_2$) by a carbonate compound.

Salt of Mars
Most often used for ferrous sulfate (FeSO_4). Occasionally used as a general term for any iron salt and as a specific name for ferrous acetate ($\text{Fe}(\text{C}_2\text{H}_3\text{O}_2)_2$).

Salt of Milk
Probably calcium lactate ($\text{Ca}(\text{C}_3\text{H}_5\text{O}_3)_2$).

Salt of Oxbone
Impure ammonium salts from bone extracts of cattle (NH_4OH).

Salt of Science
See Salt Alembroth.

Salt of Sedlitz
See Sedlitz Salt. (Sometimes sedlitz salt was confused with Glauber's salt.)

Salt of Soda
See Soda.

Salt of Sorrel
Acid potassium oxalate (KHC_2O_4).

Salt of Steel
Loosely applied to various iron salts. Most commonly applied to martial vitriol. (Ferrous Sulfate; FeSO_4).

Salt of Sulphur
Impure potassium sulfate (K_2SO_4).

Salt of Sylvius (Febrifugal Salt of Sylvius)
Potassium chloride (KCl).

Salt of Tachenius
Impure potassium and sodium carbonates (K_2CO_3 , Na_2CO_3) obtained from the incomplete combustion of plant products. These salts contained organic impurities.

Salt of Tartar
Potassium carbonate (K_2CO_3).

Salt of Urine
Impure ammonium salts extracted from urine.

Salt of Vinegar
Impure potassium sulfate. Probably mixed with acetates and citrates.

Salt of Wisdom
See Salt Alembroth.

Salt of Wormwood
Mostly potassium carbonate (K_2CO_3).

Sal Vitrioli
Ferrous sulfate ($FeSO_4$).

Sal Volatile Fixatum
Ammonium sulfate ($(NH_4)_2SO_4$).

Sal Volatile Oleosi
Any solid extracted from animals or vegetable matter containing ammonium salts, e.g., salts of hartshorn, etc.

Sandarach
(1) See Realgar; (2) a resin from the tree *Callitris quadrivalvis*.

Sadniver (Glass Gall)
A solution containing a mixture of salts found on the surface of glass after vitrification.

Saphire
See Sapphire.

Sapid
To have a decided, yet pleasant taste.

Saponaceous
To be soapy, slippery, sometimes foaming.

Sapphire
A clear blue gem material which is like ruby, a crystalline form of alumina. (Al_2O_3)

Sarcocolla
A gum resin imported from the Middle East.

Sarsparilla
The roots of plants of the family smilacaceae from which gummy and resinous extracts are obtained.

Sassafras
A term applied both to the tree *Sassafras officinale* and to its bark when dried and prepared.

Saturation
The action by which a "perfect" union between an acid and an alkali is accomplished. Its product is a neutral salt.

Saturn (of Saturn)
Used in referring to lead or to compounds containing lead.

Saunders
See Red Saunders.

Scammony
A gummy, resinous juice from the root of the plant *Convolvulus scammonia*.

Scheele's Green
Cupric hydrogen arsenite ($CuHAsO_3$).

Schorl
A black mineral. Now known as a variety of tourmaline.

Schwartz Blei Weiss (Black White-Lead)
Plumago (graphite) (C_N).

Scordium
The plant *Teucrium scordium* from which gummy and resinous extracts are obtained. It has an odor of garlic.

Scoria
The undesirable solid residues or slag which remain after a metal has been separated from an ore.

Scorification
Any process which produces scoria or slag. Sometimes used for processes which yield metal or semimetals. Scorification usually involved the addition of other substances to the ore, then heating.

Secret Fixed Sulphur of the Philosophers
Calcined residue when sulphur is distilled with linseed oil.

Secret Sal Ammoniac (Glauber's Secret Sal Ammoniac)
Ammonium sulfate ($(NH_4)_2SO_4$).

Sedative Salt
Usually boric acid, but sometimes sodium tetraborate ($Na_2B_4O_7$).

Sedative Spar
Calcium borate (CaB_4O_7).

Sedlitz Salt (Epsom Salt)
Magnesium Sulphate (MgSO_4).

Seignette's Salt
Sodium potassium tartrate (Rochelle's salt) ($\text{NaKC}_4\text{H}_4\text{O}_6$).

Selenite
The various minerals forms of Calcium sulphate (CaSO_4).

Selenitic Spar
Any mineral assigned to the family of "spars" that could be calcined like gypsum ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$).

Semi-Metals
Substances which have the properties characteristic of metals except for ductility and which sublime. Different chemists had different lists, but most included antimony (Sb), arsenic (As); bismuth (Bi), cobalt (Co), and Zinc (Zn). Some included mercury (Hg) and, later in the century, nickel (Ni).

Sena (Senna)
Several similar plants of the genus Cassia from the leaves of which gummy and resinous extracts were obtained.

Senegal
A gum extract from the root of the North American species *Polygala senega*.

Senna
See Sena.

Separation-Glass
A vessel narrow at the top, then bellying out in the center, and narrowing again to a hollow tube or stem. Shaped somewhat like the modern spheratory funnel and often used for similar purposes.

Serpentine
A steatite, usually green.

Shoot
When crystals appeared, especially suddenly in a saturated solution, they were said to "shoot".

Siderum
Iron phosphide (Fe_3P).

Silex
Silicon dioxide (SiO_2).

Silicious Earth (Silica)
Silicon dioxide (SiO_2).

Similar
A copper zinc alloy with a color approximating that of real gold.

Slaked Lime
Calcium hydroxide ($\text{Ca}(\text{OH})_2$).

Smalt
A blue, glassy substance used as a pigment. The blue comes from cobaltous oxide (CuO). Smalt also contains silica (SiO_2).

Smelting
The process of extracting a metal from its ore.

Smo(a)king Spirit of Libavicus
Primarily stannous chloride (SnCl_2) but with chlorides of mercury mixed in.

Smo(a)king Spirit of Nitre
Concentrated nitric acid (HNO_3).

Snow of Antimony
See Flowers of Antimony.

Soap
In general, any chemical combination of acids, bases, or salts with oils that exhibit detergent action. Common soap was the product of sodium hydroxide with an oil or fat.

Soap of Glass
Manganese dioxide (MnO_2) in its role of agent to remove color bodies from glass while the glass is molten.

Soap-Rock
See Steatites.

Soapstone
See Steatite

Soda
Sodium carbonate (Na_2CO_3)

Soda Baryllia (Spanish)
Sodium carbonate (Na_2CO_3)

Soda Hispanica (Washing Soda)
Sodium carbonate (Na_2CO_3)

Solder
Any fusible metal alloy used for joining two pieces of metal. Most types were alloys of tin and lead.

Soluble Tartar
Normal potassium tartrate. Probably ($\text{K}_2\text{C}_4\text{H}_4\text{O}_6$)

Solution
Any liquid in which one component called the "solute" is dispersed in a second component called the "solvent."

Solvend (Cullen)
Solute

Soot
Carbon and hydrocarbon deposits from incomplete combustion of fuels.

Sorrel
Various plants of the genus Rumex from which an acid salt (acid potassium acetate) was extracted.

Spanish Earth
Vitriols (mixture) (CuSO_4 ; FeSO_4).

Spanish Green
Basic copper carbonate ($2\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$).

Spanish White
Bismuth oxychloride (or oxynitrate) (BiOCl ; BiONO_3)

Spar
A class of compounds characterized by a crystalline form that features shiny reflective plate surfaces.

Spath (Spat) Stone
A naturally occurring mineral solid containing mostly calcium sulfate (CaSO_4).

Spathic Iron Ore
Ferrous carbonate (FeCO_3)

Specificum Purgans Paracelsi
Potassium sulfate (K_2SO_4)

Spermaceti
The white fatty substance obtained from the head of the sperm whale. Used in pharmaceuticals and candles.

Sphacelated
Gangerenous

Spikenard
The aromatic extract from the Indian plant Nardostachys jalamansi. The term was also used for the plant itself.

Spirit
(1) Any liquor obtained from another substance by distillation; (2) later, any subtle substance dissolved in another substance. The concept gradually veered toward what we now call the gaseous state.

Sp. Ammon. Cum Calce Viva
Ammonium carbonate ($(\text{NH}_4)_2\text{CO}_3$).

Spirit Ammon. Sal. Vol.
Mostly ammonium carbonate ($(\text{NH}_4)_2\text{CO}_3$).

Spirit of Alum

Sulfuric acid (H_2SO_4) obtained from the destructive distillation of alum ($\text{KAl}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$).

Spirit of Hartshorn
Strong solution of ammonia produced by the distillation of hartshorn (NH_4O_4).

Spirit of Libavius
Stannic chloride (SnCl_4).

Spirit of Mindererus
Ammonium acetate solution ($\text{NH}_4(\text{C}_2\text{H}_3\text{O}_2)$).

Spirit of Wine
Ethanol (ethyl alcohol) ($\text{C}_2\text{H}_5\text{OH}$).

Spiritus Aceti
The acetic acid ($\text{HC}_2\text{H}_3\text{O}_2$) obtained from distilling any fermented material which produces this acid, e.g., vinegar.

Spiritus Beguini
Ammonium polysulfide (fuming liquor of Boyle) ($(\text{NH}_4)_2\text{S}$).

Spiritus CC
Ammonium carbonate ($(\text{NH}_4)_2\text{CO}_3$).

Spiritus Nitri Coagulatus
Potassium nitrate (KNO_3).

Spiritus Nitri Dulcis (Sweet spirit of Nitre)
Ethyl nitrite ($\text{C}_2\text{H}_5\text{NO}_2$).

Spiritus Sal Ammoniacum
See Spirit of Sal Amomoniac.

Spiritus Salis Ammoniaci Cum Sale Alkali Parata
Ammonium carbonate ($(\text{NH}_4)_2\text{CO}_3$).

Spiritus Salis Coagulatus
Potassium chloride (KCl).

Spiritus Sulphuris
See Spirit of Vitriol or Spirit of Sulphur

Spiritus Sulphuris Volatilis Beguinii
Ammonium polysulphide ($(\text{NH}_4)_2\text{S}$).

Spirit Veneris
Sulphuric acid (H_2SO_4).

Spiritus Vitrioli
See Spirit of Vitriol.

Spiritus Vitrioli Coagulatus
Potassium sulfate (K_2SO_4).

Sp. Mind.
See Spirit of mindererus

Spout
Any hollow projection from a vessel that is used to direct the liquid flow while pouring. This term was most commonly applied to the spout on an alembic.

Spuma Lupi
The mineral from which tungsten was extracted.

Stagnant Gas (Marsh Gas)
Methane (CH_4).

Stamping
Crushing of ores.

Stannum Anglici
Tin (Sn) from England.

Stannum Glaciale
Bismuth (Bi)

Starkey's Soap
Saponaceous substance from the reaction between potassium carbonate and essential oil of turpentine.

Steatite

A mineral substance composed mostly of various forms of magnesium silicate, e.g., ($\text{Mg}_3\text{Si}_4\text{O}_{11} \cdot \text{H}_2\text{O}$).

Steel
Regarded as a form of iron which (a) contained a larger portion of the inflammable principle and (b) had fewer chemical impurities.

Stibiated Tarter
Potassium antimonyl tartrate ($\text{KSbC}_4\text{H}_4\text{O}_7$).

Stibium
Antimony sulfide (Sb_2S_3).

Stick Laque
See Lac.

Stinking Sulphureous Air
Hydrogen sulphide (H_2S).

Stone of bologna
A variety of barium sulfate (BaSO_4) that became phosphorescent when calcined.

Spirit of Niter "Besiardique"
Nitric acid added to "Butter of Antimony" and the mixture distilled to get a liquor which holds the "Regulus of Antimony" in solution.

Spirit of Nitre
Dilute nitric acid (HNO_3).

Spirit of Ammoniac
Ammonia (NH_3), or ammonium hydroxide solution (NH_4OH).

Spirit of Salt
hydrochloric acid (HCl).

Spirit of Saturn
Impure acetone made from lead acetate (CH_3COCH_3).

Spirit of Sea-Salt
Hydrochloric acid (HCl).

Spirit of Sulfer
Mixture of sulfuric and sulfurous acids (H_2SO_4 ; H_2SO_3).

Spirit of Tatar
Potassium hydrogen tartrate ($\text{KHC}_4\text{H}_4\text{O}_6$). Product of the dry distillation of crude tartar.

Spirit of Urine
Ammonium carbonate ($(\text{NH}_4)_2\text{CO}_3$). Derived from an impure solution of ammonia obtained by the distillation of urine.

Spirit of Venus
Concentrated and relatively pure acetic acid ($\text{HC}_2\text{H}_3\text{O}_2$).

Spirit of Verdigris
Acetic acid ($\text{HC}_2\text{H}_3\text{O}_2$).

Spirit of Vinegar
Impure acetic acid obtained by distilling vinegar ($\text{HC}_2\text{H}_3\text{O}_2$).

Spirit of Vitriol
Dilute sulfuric acid (H_2SO_4) and/ or sulfurous acid (H_2SO_3).

Strontia
Strontium oxide (SrO).

Sublimate
Solid or concrete products of sublimation. Not powder.

Sublimation
A property possessed by some substances enabling their going directly from the solid to the gaseous state without passing through the liquid phase.

Subsatnia Ferrea Vitrioli
Ferric oxide (Fe_2O_3).

Succinum
Amber.

Sudorific
Any medicinal substance which promoted, or was believed to promote, sweating.

Sugar of (A Substance)

Usually signifying an acetate ($C_2H_3O_2$).

Sugar of Lead

Lead acetate ($Pb(C_2H_3O_2)_2$).

Sulphur

(a) As a "principle," in the seventeenth and early eighteenth centuries the substantive causes of the properties of inflammability, color, and odor; (b) in the doctrine of phlogiston, a compound composed of vitriolic (sulfuric) acid and the inflammable principle, "phlogiston."

Sulphur Album Fixum

Potassium nitrate (KNO_3).

Sulphurated Iron

Ferrous sulphide (FeS).

Sulphur Minerale

Solid mineral sulphur (S).

Sulphur Of Antimony (Golden Sulphur of Antimony)

The orange sulfide of antimony, usually a mixture of the trisulfide (Sb_2S_3) with some of the pentasulfide (Sb_2S_5).

Sulphureous Salt of Stahl

Impure potassium sulfite (K_2SO_3).

Sulphureous Acid

Sulfurous acid (H_2SO_4).

Sulphurets

Sulfides (S).

Sulphureum (Bergman)

Sulfurous acid (H_2SO_3).

Sulphurous Acid (Pre-Lavoisier)

Sulfuric acid (H_2SO_4).

Sulphur Vivum

Naturally occurring sulphur (S).

Superolefiant Gas (Dalton)

Butylene (C_4H_8).

Swedish Acid

Hydrofluoric acid (HF).

Sweetened Spirit of Salt

Ethyl chloride (C_2H_5Cl).

Sweet Mercury (Mercurous Dulis)

Mercurous chloride (Hg_2Cl_2).

Sweet Principle from oils and fats

Glycerol ($HOCH_2CHOHCH_2OH$).

Sweet Sublimate

Mercurous chloride (Hg_2Cl_2).

Sympathetic Ink

Any solution that is colorless but becomes dark (and thus visible) by heating, by addition of other chemicals, etc.

Syrup of Violets

A water extract of the petals of violets.

Syrupus Violatum

See Syrup of Violets.

T

Tabasheer (Tabachir)

A white powder formed at the joints of bamboo shoots. Imported from the Orient and used as a medicinal.

Talc

A mixture of magnesium metasilicate ($Mg_3H_2(SiO_4)_3$) with magnesium silicate ($Mg_3Si_4O_{11} \cdot H_2O$).

Talky Earths

(a) fibrous earths; (b) earths that suffer no change from the action of acids or fire; (c) earths that do not become viscid or hard when made into aqueous paste, e.g., asbestos.

Tannin

Any astringent vegetable substance that can react with animal hyde and convert it to leather. The most common tannin was tannic acid extracted from oak-galls.

Tar

The dense, black, inflammable liquid or semisolid obtained from the distillation of various woods or coal. A complex mixture of hydrocarbons and organic compounds.

Tartar

Potassium hydrogen tartrate ($K_4HC_4H_4O_6$).

Tartarated Alkali of Tartar

Potassium tartrate ($K_2C_4H_4O_6$).

Tarter Emetic (Stibiated Tartar)

potassium antimonyl tartrate ($KSbC_4H_4O_7$).

Tartarified Iron

see Chalybs Tartar.

Tartarified Tincture of Iron

Ferrous tartrate solution ($FeC_4H_4O_6$).

Tartarin

A term occasionally used for potassium carbonate (K_2CO_3).

Tartarized Tartar

Potassium tartrate ($K_2C_4H_4O_6$).

Tartarized Tincture of Mars

Not a true alcohol solution, this medicinal was dubbed a tincture largely because of its deep color. Probably iron tartrate ($FeC_4H_4O_6$).

Tartarum Regeneratum (Regenerated Tartar)

Potassium acetate ($KC_2H_3O_3$) for the most part, but also used for assorted potassium salts. Not very well defined.

Tartarum Solubus (Soluble Salt of Tartar)

Potassium tartrate ($K_2C_4H_4O_6$).

Tartarum Tartisatum

Potassium tartrate ($K_2C_4H_4O_6$).

Tartarum Vitriolatum (Vitriolated Tartar)

Potassium sulfate (K_2SO_4).

Tartarus Citratus

Potassium citrate ($K_3C_6H_5O_7 \cdot H_2O$).

Tartarus Nitratu

Potassium nitrate (KNO_3).

Tartarus Tartarisatus

Potassium tartrate ($K_2C_4H_4O_6$).

Tartarus Vitriolatus

Potassium sulfate (K_2SO_4).

Tartre Stybie (Tartar Emetic)

Potassium antimonyl tartrate ($KSbC_4H_4O_7$).

Tar Water

A solution of the water-soluble components of tar. Mostly alcohols and polar organic materials.

Tectum Argenti

Bismuth (Bi).

Terebinth

The resin from the terebinth tree *Pistacia terebinthus*.

Terebinthaceous

Impregnated with turpentine, having turpentine as a component, or just similar to turpentine.

Terebinthine

The refined portion or the "spirit" of the resin from the terebinth and other trees having similar resins. Very similar to what we now call turpentine.

Terra Anglica Rubra
Ferric oxide (Fe_2O_3).

Terra Foliata Nitri
Potassium acetate ($\text{KC}_2\text{H}_3\text{O}_2$).

Terra Foliata Tartari
See Regenerated Tartar.

Terra Foliata Tartari Crystallisabilis
Sodium acetate ($\text{NaC}_2\text{H}_3\text{O}_2$).

Terra Foliata Secretissima
Solid potassium acetate ($\text{KC}_2\text{H}_3\text{O}_2$)₂.

Terra Francisca
Assorted sulfates (e.g., FeSO_4 , CuSO_4).

Terra Molybdaenea
Molybdic acid ($\text{H}_2\text{MoO}_4(\text{H}_2)$).

Terra Ponderosa
Barium sulfate (BaSO_4).

Terra Ponderosa Acetate
Barium acetate ($\text{Ba}(\text{C}_2\text{H}_3\text{O}_2)_2$).

Terra Ponderosa Aerata
Barium carbonate (BaCO_3).

Terra Ponderosa Molybdaenata
Barium molybdate (BaMoO_4).

Terra Foliee Animale
Ammonium acetate ($\text{NH}_4\text{C}_2\text{H}_3\text{O}_2$).

Terra Foliee Crystallisee
Sodium acetate ($\text{NaC}_2\text{H}_3\text{O}_2$).

Test
A large cupel used for refining substantial quantities of gold and silver by means of lead.

Testaceous Earths
Mineral solids that came from or were chemically similar to shells. Thus, "testaceous powders" were prepared from shells.

Testing
The operation of refining gold and silver by means of lead.

Theriac
A general term for an antidote for the poison of a venomous snake.

Tincal (Tinkal)
Crude borax imported from India.

Tinct. Tartari
Solution of potassium hydroxide (KOH) in alcohol.

Tinctura Antimonii
See Tincture of Antimony.

Tincture
A solution in which ethanol is the primary solvent. The term was applied most often to colored solutions.

Tincture of Antimony
A medicinal prepared from antimony metal and liver of sulphur (potassium polysulfides).

Tincture of Coral
Crude acetone (CH_3COCH_3).

Tincture of Mars
A general term for various medicinal preparations involving iron salts. Common components included ferrous hydroxide and mixed tartrates and oxides.

Tincture of Mars of Mynsight
An alcohol solution in which the solute is primarily ferric chloride (FeCl_3).

Tin-Glass
Bismuth (Bi).

Tinging

When one substance tinges or slightly colors another.

Torrefaction

Roasting of ores in the hope of removing impurities.

Tourmaline (Tourmalin, Ash-Stone)

A mineral solid consisting of various forms of silicoborate, including the black mineral "Schorl."

Tournoise

See Turnsol.

Triplesalts

Salts which seemed to have three components rather than the usual two, e.g., alum ($\text{KAl}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$).

Tripoli (Infusoria Earth, Rotten-Stone)

A finely divided mineral solid used for polishing. Obtained from the shells of diatoms.

Tritorium

A vessel used for the separation of immiscible liquids. It was often shaped somewhat like two modern separatory funnels cut near their tops and fused together. Basically the same as a separating glass.

Trituration

Mechanical breakdown or division of solid substances through grinding; e.g., with mortar and pestle, in a mill, etc.

Triture

See Trituration.

Trona

Naturally occurring sodium carbonate (Na_2CO_3). It usually had some bicarbonate (NaHCO_3) in it as well.

Tubulated Retort

A retort which had a sealable opening in the top to allow addition or removal of material without changing the position of the retort.

Tung Spat

See Heavy Spar.

Tungsten (Scheelite)

Native calcium tungstate (CaWO_4)

Turmeric

A powder made from the root of the imported East Indian plant *Curcuma Longa*.

Turners Yellow

Yellow lead oxychloride ($\text{PbCl}_2 \cdot 3\text{PbO}$).

Turnsol (e)

The bluish purple substance from the plant lichen *Crotophora tinctoria*. Used as an indicator. Synonymous with litmus.

Turpentine

A resinous liquid extracted from various trees. Originally the extract of the terebinth tree *Distacia terebinthus*.

Turpeth Mineral (Turbeth Mineral)

Basic mercuric sulphate ($\text{HgSO}_4 \cdot 2\text{HgO}$).

Tutenag (Chinese Copper)

A term occasionally applied to zinc (Zn). Also used for a white metal alloy (Chinese copper) which consisted primarily of copper (Cu), zinc (Zn), and nickel (Ni). Used to alloy silver in coins and jewelry items.

Tutia

See Tutty.

Tutty

Zinc oxide (ZnO).

U

Uliginous

Any water, oozing matter like that in a swamp.

Ulmin

A mucilagenous substance from the inner bark of the elm.

Ultramarine

A blue pigment mad from the gem mineral lapis lazuli. The relative composition of ultramarine is not fixed, but the largest component is a sodium aluminum silicate combined with sulphur.

Umber

A mineral solid which exists in a range of brown hues. Chemically, umber is mostly a mixture of hydrous ferric oxide ($\text{Fe}_2\text{O} \cdot x\text{H}_2\text{O}$) and manganese dioxide (MnO_2). It was believed by many in the eighteenth century to be a fossil wood originally found in Umbria near Spoleto in Italy.

Unctuous

Oily; i.e., viscous, adherent and lubricating.

Unctuous Oils

Oils that have little or no taste or odor but are relatively "oily"; i.e., are viscous, adherent, and lubricating.

Urinou Salts

Usually any ammonium salt. Sometimes any of the alkali carbonates.

Ustulation

The loss of volatile components of a substance without loss of texture or body. Cf. Calcination.

V

Vague Acid of Mines

An aeriform fluid which was probably largely sulphur dioxide (SO_2).

Vapour

Rather loosely applied to any aeriform substance or phase. Perhaps the best eighteenth century definition was any aeriform substance that could be liquefied by cold.

Vapour of Arsenic

Aresenious oxide (As_2O_3)

Varnish

A resin in solution. "Spirit" varnishes were resins dissolved in turpentine or alcohol. "Oil" varnishes were resins dissolved in linseed and/or other oils.

Vegetable Acid

Any acidic substance extracted from whole or fermented vegetable matter. Thus, the term was applied to acetic (CH_3COOH), citric ($\text{C}_6\text{H}_8\text{O}_7$), and tartaric ($\text{C}_4\text{H}_6\text{O}_6$) acids, etc.

Vegetable Acid, Fermentative

Primarily acetic acid from vinegar ($\text{HC}_2\text{H}_3\text{O}_2$).

Vegetative Acid, Native

Citric acid ($\text{C}_6\text{H}_8\text{O}_7$)

Vegetable Alkali (Potash)

Potassium carbonate (K_2CO_3).

Vegetable Ammoniacal Salt

Solid ammonium acetate ($\text{NH}_4\text{C}_2\text{H}_3\text{O}_2$)

Vegetable Salt

See Tartarified Tartar or Soluble Tartar.

Venus (of Venus)

Usually suggested either copper or a compound of copper. Sometimes it simply indicated an acetate. ($\text{C}_2\text{H}_3\text{O}_2^-$).

Verdigris (Verdigrise)

A basic copper acetate ($\text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2 \cdot 2\text{Cu}(\text{OH})_2$). Long used as a green pigment.

Verditer (Blue Verditer; Blue Bice)

A blue pigment made from a basic copper carbonate ($2\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$) which is chemically the same as azurite.

Vermillion

The red pigment made from cinnabar (mercuric sulfide, HgS). See Cinnabar.

Vine Black

A preparation of carbon from the twigs and wood of vines. Used as a black pigment.

Vinegar of Lead

Primarily lead acetate ($\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2$).

Vital Air
Oxygen (O_2)

Vitiated Air
Air from which oxygen has been removed, thus mainly nitrogen.

Vitresant (Vitrifiable)
Any solid that could be made into "glass".

Vitrifiable Earths (Vitreous Earths)
Mineral substances which fuse under the action of fire.

Vitrification
The chemical part of the process of making glass or of any high-temperature process which produced a glass-like substance.

Vitriol
Used mainly for ferrous sulfate ($FeSO_4$), but a generic term for sulfates. As with many old terms, the usage varied; e.g., some used the term for nitrates of silver and copper.

Vitriol, Blue
Copper sulfate ($CuSO_4$)

Vitriol, Green
Ferrous (or iron) sulfate ($FeSO_4$)

Vitriol, White
Zinc sulfate ($ZnSO_4$)

Vitriol (or Vitriolic) Acid
Sulphuric acid (H_2SO_4)

Vitriolated Earths, Metals, etc.
Sulphates.

Vitriolated Ether
Diethyl ether ($C_4H_{10}O$).

Vitriolated Tartar
Potassium sulfate (K_2SO_4)

Vitriolic Ether
Diethyl ether ($C_4H_{10}O$).

Vitriol of Goslar (White Vitriol)
Zinc sulfate ($ZnSO_4$)

Vitriol of Jove
Stannous sulfate ($SnSO_4$)

Vitriol of Jupiter
Stannous acetate ($Sn(C_2H_3O_2)_2$)

Vitriol of Mars (Green Vitriol)
Ferrous sulfate ($FeSO_4$)

Vitriol of Quick Silver
Mercuric nitrate ($Hg(NO_3)_2$)

Vitriol of Saturn
Lead acetate ($Pb(C_2H_3O_2)_2$)

Vitriol of Silver
Occasionally, early in the century, silver nitrate ($AgNO_3$). As the century progressed, the term was more reasonably applied to silver sulfate (Ag_2SO_4)

Vitriol of Venus
Cupric sulfate ($CuSO_4$)

Vitriolum Album
See White Vitriol.

Vitriolum Ammonium
Ammoniumsulfate ($(NH_4)_2SO_4$)

Vitriolum Anglicum
Ferrous sulfate ($FeSO_4$)

Vitriolum Veneris cum Alkali Fixo Praecipitatum
Basic copper acetate ($Cu(C_2H_3O_2)_2 \cdot CuO \cdot 6 H_2O$)

Vitrium Antimonii (Glass of Antimony)

- Fused antimony oxide (Sb_2O_3)
- Vivifying Spirit
A hypothetical principle in the air which, according to some early eighteenth century chemists, was the active agent in combustion and respiration.
- Volatile
An adjective usually used to indicate not only that a substance naturally gave off some aeriform component (as indicated by an odor) but also that it decomposed easily and gave off one or more aeriform components to the air on heating.
- Volatile Acid of Nitre
Nitrous acid (HNO_2)
- Volatile Acid of Sulfur (Phlogisticated Vitriolic Acid)
Sulfurous acid (H_2SO_3)
- Volatile Alkali
A term most commonly used for solutions of ammonia; e.g., ammonium hydroxide.
- Volatile Alkali in its Concrete Form
Ammonium carbonate (NH_4CO_3)
- Volatile Liver of Sulfur
Volatile product from heating sulfur with quicklime and ammonium chloride.
- Volatile Sal Ammoniac
Ammonium hydroxide solution.
- Volatile Salt
Ammonium carbonate ($(\text{NH}_4)_2\text{CO}_3$)
- Volatile Salt of Amber
See Salt of Amber
- Volatile Salt of Hartshorn
Ammonium carbonate (NH_4CO_3)
- Volatile Spirit of Sal Ammoniac
Ammonium hydroxide (NH_4OH) obtained from quicklime (calcium oxide) and sal ammoniac (ammonium chloride).
- Volatile Spirit of Sulfur
The aeriform product from burning sulfur; mostly sulfur dioxide
- Volatile Vitriol of Venus
Copper acetate $\text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2$

W

- Wash
Any fermented mixture which, after distillation, would produce distilled spirits (ethanol $\text{CH}_3\text{CH}_2\text{OH}$, with impurities).
- Water gas
Mixture of hydrogen (H_2) and carbon monoxide (CO)
- Water of Minderus
A solution of ammonium acetate ($\text{NH}_4\text{C}_2\text{H}_3\text{O}_2$).
- Water of Rabel
A solution of ethyl ether ($\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3$) in ethanol ($\text{CH}_3\text{CH}_2\text{OH}$)
- Wax
A term referring to beeswax only, as the hydrocarbon waxes were not available in the eighteenth century.
- Whey
The liquid which remains after milk is curdled, usually in the process of cheese-making
- White Arsenic
Arsenious oxide (As_2O_3)
- White Calx of Antimony
Mixture of antimony oxide (Sb_2O_3) and potassium oxide (K_2O).
- White Copper
An alloy of arsenic (As), copper (Cu), and zinc (Zn).
- White Copperas

- Zinc sulphate (ZnSO_4)
- White Lead
Basic lead carbonate ($\text{Pb}(\text{CO}_3)_2 \cdot \text{Pb}(\text{OH})_2$)
- White Manganese
Manganous carbonate (MnCO_3)
- White Precipitated Mercury (Precipitate of Sublimate of Mercury)
Mercurammonium chloride (HgNH_2Cl)
- White Vitriol
Zinc sulphate (ZnSO_4)
- Wind Furnace
A reverberating furnace.
- Wine
Often used more broadly by eighteenth-century chemists to include any potable liquid which had become "spiritous" through fermentation; e.g., beer, cider, and mead.
- Witherite
Barium carbonate (BaCO_3).
- Woad
A blue dye prepared from the leaves of the plant *Isatis tinctoria*.
- Wolfram
A mineral substance Spumi lupi that was under investigation in the 18th century.
- Wood Ash
Potassium carbonate (K_2CO_3)
- Worm
A long, coiled tube, usually of copper, attached to the head of a distillation apparatus for the purpose of increasing condensation. A worm commonly was used in distilling spirits.
- Wormwood
The plant *Artemisia absinthium*, the leaves of which were used to make an extract by distillation.
Used as a medicinal.
- Wort
An infusion of grain, usually malt, which was fermented to produce beer.
- Woulfe Bottle
A bottle with two or more necked orifices that was used in distillation.

Y

- Yellow
A yellow coloring agent produced by treating indigo with dilute nitric acid. This substance proved to be unstable and seldom was used as dye.
- Yellow Aqua Fortis
Concentrated nitric acid (HNO_3).
- Yellow Arsenic
Arsenious sulphide (As_2S_3).
- Yellow Ochre
Hydrated ferric oxide ($\text{Fe}_2\text{O}_3 \cdot \text{H}_2\text{O}$).
- Yttria
A mixture of rare earth elements from the mineral gadolinite. Primarily the trioxide of yttrium (Y_2O_3).

Z

- Zaffre (Saffre)
A gray or reddish powder composed mostly of cobalt oxide (CoO).
- Zeolites
A group of mineral solids which are various hydrated silicates, primarily of aluminum, calcium, potassium, and sodium. Although not really related, they share the property of swelling and "boiling" under the heat of the blowpipe.
- Zinc (Zinco, Zinetum)
Regarded in the eighteenth century as a semi-metal because of its relative brittleness.

