

## 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 ( $\text{H}_3\text{PO}_4$ )

Acid of Vinegar  
Acetic acid ( $\text{CH}_3\text{COOH}$ ).

Acid of Vitriol  
Sulfuric acid ( $\text{H}_2\text{SO}_4$ )

Acidium Aereum  
Carbon dioxide ( $\text{CO}_2$ ).

Acidium Mephiticum  
Carbon dioxide ( $\text{CO}_2$ ).

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

Acidium Sacchari  
Oxalic acid ( $\text{COOH COOH}$ ).

Acid Vitriolated Tartar  
Potassium hydrogen sulphate ( $\text{KHSO}_4$ ).

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.,  $\text{K}_2\text{CO}_3$ ).

"Aerated" Compounds (Bergman)  
Carbonates ( $\text{CO}_3^{2-}$ ).

Aerated Lime  
Calcium carbonate ( $\text{CaCO}_3$ ).

Aerated Water  
Water containing dissolved carbon dioxide.

Aer Hepaticus  
Hydrogen sulfide ( $\text{H}_2\text{S}$ ).

Aerial Acid  
Carbon dioxide ( $\text{CO}_2$ ).

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

Aer Urinosum  
Ammonia ( $\text{NH}_3$ ).

Aethiops Mercuriales  
See Athiops Mineralis.

Aethiops Mineralis (Aethiops Mercuriales)  
Black mercuric sulphide ( $\text{H}_2\text{S}$ ).

Air  
Generally, any substance in gaseous state.

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

Air, Dephlogisticated  
Oxygen ( $\text{O}_2$ ).

Air, Fixed  
Carbon dioxide ( $\text{CO}_2$ ).

Air, Hepatic  
Hydrogen sulphide ( $\text{H}_2\text{S}$ ).

Air, Inflammable  
Hydrogen ( $\text{H}_2$ ).

Air, Marine Acid

Hydrogen chloride (HCl).

Air, Mephitic  
Carbon dioxide (CO<sub>2</sub>).

Air, Phlogisticated  
Nitrogen (N<sub>2</sub>).

Air, Vital  
Oxygen (O<sub>2</sub>).

Air of Flour Spar  
Hydrofluoric acid gas (usually with silicon fluoride) (HF).

Air of Vitriol  
Sulphur dioxide (SO<sub>2</sub>).

Alaunerde  
Alumina (Al<sub>2</sub>O<sub>3</sub>).

Alcohol  
Usually spirit of wine (CH<sub>3</sub>CH<sub>2</sub>OH) (sometimes *any* very fine powder).

Alembic  
A type of distillation apparatus.

Alexipharmic  
A remedy or preservative against poison.

Alicant Kelp  
Crude sodium carbonate (Na<sub>2</sub>CO<sub>3</sub>).

Alk. Min. Vitriol  
Sodium sulphate (Na<sub>2</sub>SO<sub>4</sub>).

Alkahest  
Originally, the universal solvent (alchmeical term)

Alkahest Glauber  
See Fixed vegetable alkali (K<sub>2</sub>CO<sub>3</sub>)

Alkahest of Reapour  
See fixed vegetable alkali (K<sub>2</sub>CO<sub>3</sub>)

Alkahest of Van Helmot (Glauber's Alkahest)  
concentrated potassium carbonate (K<sub>2</sub>CO<sub>3</sub>)

Alkalescent  
Any substance which is slightly alkaline or turning alkaline

Alkali, Caustic  
Hydroxides (OH<sup>-</sup>)

Alkali, Common mineral  
Sodium Carbonate (Na<sub>2</sub>CO<sub>3</sub> · 10H<sub>2</sub>O)

Alkali, Concrete Volatile  
Ammonium carbonate (NH<sub>4</sub>)<sub>2</sub>CO<sub>3</sub>)

Alkali, Fossil  
Sodium Carbonate (Na<sub>2</sub>CO<sub>3</sub>)

Alkali, Marine  
Sodium Carbonate (Na<sub>2</sub>CO<sub>3</sub>)

Alkali, Mild  
Carbonates (CO<sub>3</sub><sup>2-</sup>)

Alkali, Vegetable, Fixed  
Potassium Carbonate (K<sub>2</sub>CO<sub>3</sub>)

Alkali, Vegetable, Mild  
Potassium Carbonate (K<sub>2</sub>CO<sub>3</sub>)

Alkali, Volatile  
Ammonia (NH<sub>3</sub>)

Alkali of Soda  
Sodium carbonate (Na<sub>2</sub>CO<sub>3</sub>)

Alkali of Tartar  
Potassium Carbonate (K<sub>2</sub>CO<sub>3</sub>)

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 (CH<sub>3</sub>CH<sub>2</sub>OH)

**Argillaceous Earth**  
Clay

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

**Arsenic**  
Arsenic trioxide (As<sub>2</sub>O<sub>3</sub>)

**Arsenical Sal Ammoniac**  
Ammonium arsenate (NH<sub>4</sub>)HAsO<sub>4</sub>.

**Ash, Black**  
Impure sodium carbonate (Na<sub>2</sub>CO<sub>3</sub>).

**Ash, Pearl**  
See Pearl Ash

**Ash, Pot**  
See potash

**Ashes of Tin**  
Stannic oxide (SnO<sub>2</sub>)

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

**Atramentum**  
Ferrous sulfate (FeSO<sub>4</sub>)

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

**Auripigmentum**  
Arsenic trisulfide (As<sub>2</sub>S<sub>3</sub>)

**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<sub>2</sub>)

**Azure**  
A blue pigment from cobalt

**Azurite**  
Basic copper (cubic) carbonate (2CuCO<sub>3</sub> · Cu(OH)<sub>2</sub>)

## **B**

**Baking Soda**  
Sodium bicarbonate (NaHCO<sub>3</sub>)

**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<sub>2</sub>CO<sub>3</sub>)

**Barite, Baryte(s)**  
Barium sulfate (BaSO<sub>4</sub>)

**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 ( $\text{KClO}_3$ ).

Bezoardicum Minerale

See Bezoar Mineral.

Bezoar Mineral

Antimonic acid ( $\text{H}_3\text{SbO}_4$ ).

Bismuth Corne

Bismuth oxychloride ( $\text{BiOCl}$ ).

Bitter Cathartic Salt

Magnesium sulfate ( $\text{MgSO}_4$ ).

Bitter Earth

Magnesium oxide or carbonate ( $\text{MgO}$ ;  $\text{MgCO}_3$ ).

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  $\text{Na}_2\text{CO}_3$ )

Black Copper

Copper sulfide ( $\text{CuS}$ ).

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 ( $\text{PbS}$ ) and thus sometimes called "false galena." Now known as sphalerite. Primarily zinc sulfide ( $\text{ZnS}$ ).

Blind Head

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

BLUE VITRIOL

Copper sulfate ( $\text{CuSO}_4$ )

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 ( $\text{MnO}_2$ ).

**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 ( $\text{CH}_3\text{COCH}_3$ ).

**BURNT ALUM**

Exsiccated alum ( $\text{Al}_2(\text{SO}_4)_3$ ). Product of heating potassium alum.

**BURNT LIME**

See Quicklime.

**BUTTER OF ANTIMONY**

Deliquescent antimony trichloride ( $\text{SbCl}_3$ )

**BUTTER OF ARSENIC**

Arsenic trichloride ( $\text{AsCl}_3$ )

**BUTTER OF TIN**

Stannic chloride ( $\text{SnCl}_4$ )

**BUTTER OF ZINC**

Zinc chloride ( $\text{ZnCl}_2$ ).

**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 ( $\text{ZnCO}_3$ )

**CALAMY (CALAMINE)**

Zinc carbonate ( $\text{ZnCO}_3$ ), sometimes ( $\text{Zn}_2\text{SiO}_4 \cdot \text{H}_2\text{O}$ ).

**CALCAREOUS EARTH**

Usually chalk ( $\text{CaCO}_3$ ). Also possible magnesia and/or alumina and/or barytes. Also lime.

**CALCARIUM POTENTIALE**

Potassium carbonate ( $\text{K}_2\text{CO}_3$ ).

**CALCIC LIVER OF SULFUR**

Calcium sulfide ( $\text{CaS}$ ).

**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 ( $\text{CaCO}_3$ )

**CALLUS**

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

**CALOMEL**

Mercurous chloride ( $\text{Hg}_2\text{Cl}_2$ )

**CALX**

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

CALX ACETOSELL

Calcium oxalate ( $\text{CaC}_2\text{O}_4$ )

CALX AERATA

Calcium carbonate ( $\text{CaCO}_3$ )

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 ( $\text{CaMoO}_4$ )

CALX OF ANTIMONY

Antimony trioxide ( $\text{Sb}_2\text{O}_3$ )

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 ( $\text{CaO}$ ).

CALX PLUMBI AERATA

See White Lead.

CALX SACCHARATA

Calcium oxalate ( $\text{CaC}_2\text{O}_4$ ).

CALX. TARTARISATA

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

CALX VIVA

Quicklime ( $\text{CaO}$ ).

CAMPHERE (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 ( $\text{Fe}_2\text{O}_3$ )

CARBONATE OF LIME

Calcium carbonate ( $\text{CaCO}_3$ ).

CARBONIC ACID

Carbon dioxide ( $\text{CO}_2$ ).

CARBONIC OXIDE

Carbon monoxide ( $\text{CO}$ ).

CARBURETTED HYDROGEN GAS

Methane ( $\text{CH}_4$ )

CATHARTIC SALT OF GLAUBER

Sodium sulphate ( $\text{Na}_2\text{SO}_4$ ).

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 ( $\text{NaOH}$ ,  $\text{KOH}$ , and  $\text{NH}_4\text{OH}$ ) bases and usually meant potassium hydroxide ( $\text{KOH}$ ).

CAUSTIC PONDEROUS EARTH

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

CAUSTICUNi ANTIMONIALE

Probably antimony trichloride ( $\text{SbCl}_3$ )

CAWK



Barium sulphate ( $\text{BaSO}_4$ )

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

Cendres Gravellees  
Potassium carbonate ( $\text{K}_2\text{CO}_2$ ).

Ceruse (Cerussa) (Cerusse)  
See White Lead.

Cerusse Antimony  
White antimony trioxide ( $\text{Sb}_2\text{O}_3$ ).

Chalk  
Calcium carbonate ( $\text{CaCO}_3$ ).

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

Chalybs cum Sulphure Preparatus  
Ferrous sulfide ( $\text{FeS}$ ).

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 ( $\text{NH}_4\text{OH}$ ).

Cineres Clavellati  
Potassium carbonate ( $\text{K}_2\text{CO}_3$ ).

Cinnabar  
Mercuric sulfide ( $\text{HgS}$ ).

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

Circulation  
Cyclic distillation or refluxing.

Citrated Alkalies  
Citrate.

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 ( $\text{CoAsS}$ ).

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 ( $\text{Fe}_2\text{O}_3$ ).

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 ( $\text{NH}_4\text{Cl}$ ).

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

**Common Magnesia**  
Magnesium carbonate ( $\text{MgCO}_3$ ).

**Common Mineral Alkali**  
Sodium carbonate ( $\text{Na}_2\text{CO}_3$ ).

**Common Nitre (Salt peter)**  
Potassium nitrate ( $\text{KNO}_3$ ).

**Common Salt**  
Sodium chloride ( $\text{NaCl}$ ).

**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 ( $\text{PbCl}_2$ ).

**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 ( $\text{HgCl}_2$ ).

**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 ( $\text{CaSO}_4$ ).

**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 ( $\text{Fe}_2\text{O}_3$ ).

**Crocus of Iron**  
Ferric oxide.

**Crocus of Mars**  
Ferric oxide.

**Crocus Saturni**

Red lead (minium) ( $\text{Pb}_3\text{O}_4$ ).

Crude Antimony  
Natural antimony sulfide ( $\text{Sb}_2\text{S}_3$ ).

Crude Flux  
Nitre 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 ( $\text{Na}_2\text{CO}_3$ ).

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 ( $\text{AgNO}_3$ ).

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

Cubic Nitre  
Crystallized sodium nitrate ( $\text{NaNO}_3$ ).

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

Cyprian Vitriol  
Copper sulfate ( $\text{CuSO}_4$ ).

## 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.

Decompounded  
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 ( $\text{Cl}_2$ ).

Dephlogisticated Air

- Oxygen (O<sub>2</sub>).
- Dephlogisticated Calx of Iron  
Ferrous oxide (Hydroxide) (FeO or Fe(OH)<sub>2</sub>).
- Dephlogisticated Marine Acid  
Chlorine (Cl<sub>2</sub>).
- 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<sub>2</sub>O<sub>3</sub>; KSbO<sub>3</sub>).
- 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<sub>2</sub>O).
- 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 Obliquium  
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<sub>2</sub>H<sub>3</sub>O<sub>2</sub>).
- 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 ( $\text{CaCO}_3$ )
- Earth, Magnesian, Mild  
Magnesium carbonate ( $\text{MgCO}_3$ )
- Earth, Silicious  
Silica ( $\text{SiO}_2$ )
- Earth Rhubarb  
Calcium oxalate ( $\text{CaC}_2\text{O}_4$ )
- Earthy Salts  
Compound of acids and earths.
- Eau Forte  
(Strong Water) Usually concentrated nitric acid ( $\text{HNO}_3$ ), 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 ( $\text{Hg}_2\text{Cl}_2$ )
- 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 of 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 ( $\text{MgSO}_4$ )
- 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 ( $\text{MgSO}_4$ )

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 ( $\text{Hg}_2\text{S}$ )

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 ( $\text{CuSO}_4$ ,  $\text{FeSO}_4$ ).
- Galacial Oil of Antimony (Butter of Antimony)  
Antimony trichloride ( $\text{SbCl}_3$ ).
- 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 ( $\text{HNO}_3$ ).
- 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 ( $\text{FeSO}_4$ ).
- Grume(s) (Gumous)  
(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 ( $\text{C}_2\text{H}_4$ ).

### Heavy Earth

Barium oxide ( $\text{BaO}$ ). Also barium hydroxide and barium carbonate.

### Heavy Inflammable Air

Used at various times for (a) carbon monoxide ( $\text{CO}$ ), (b) water gas (a mixture of  $\text{H}_2$  and  $\text{CO}$ ), or (c) methane ( $\text{CH}_4$ ).

### Heavy Spar

Barium sulfate ( $\text{BaSO}_4$ ).

### 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 ( $\text{Sb}_2\text{S}_3$ ).

### Hepar Calcis

Calcium sulfide ( $\text{CaS}$ ).

### 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 ( $\text{K}_2\text{S}$ ,  $\text{K}_2\text{S}_2$ ,  $\text{K}_2\text{S}_3$ ,  $\text{K}_2\text{S}_4$ ,  $\text{K}_2\text{S}_5$ ,  $\text{K}_2\text{SO}_4$ ).

### Hepatic Air

Hydrogen sulfide gas ( $\text{H}_2\text{S}$ ).

### 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 ( $\text{H}_3\text{BO}_3$  (ortho));  $\text{H}_2\text{B}_4\text{O}_7$  (tetra)).

### Horn (Corneous) Lead

Lead chloride ( $\text{PbCl}_2$ ).

Horn Mercury

Chloride of mercury ( $\text{HgCl}_2$ ;  $\text{Hg}_2\text{Cl}_2$ ).

Horn Silver (Luna Cornea)

Fused silver chloride ( $\text{AgCl}$ ).

Horn Tin

Stannous chloride ( $\text{SnCl}_2$ ).

Hungarian Vitriol

Usually ferrous sulfate ( $\text{FeSO}_4$ ) but also used for copper sulfate ( $\text{CuSO}_4$ ).

Hydromel

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

## I

Iceland Spar (Calcite)

A particular crystal form of calcium carbonate ( $\text{CaCO}_3$ ).

Icy Butter

Antimony chloride ( $\text{SbCl}_3$ ).

Imbibition

To soak or saturate with a liquid.

Infernal Stone

An alkali hydroxide ( $\text{NaOH}$ ,  $\text{KOH}$ ). [Not to be confused with the French term *pierre infernale*.]

Inflammable Air

Usually hydrogen ( $\text{H}_2$ ), though the usage is not constant among Priestley, Watt, Lavoisier, or Berthollet. Sometimes carbon monoxide ( $\text{CO}$ ).

Inflammable Air from Metals

Hydrogen ( $\text{H}_2$ ).

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  $\text{Fe}_2\text{O}_3$ ; in yellow ochre it is  $\text{Fe}_2\text{O}_3 \cdot \text{H}_2\text{O}$ .

Iron Vitriol

Ferrous sulphate ( $\text{FeSO}_4$ ).

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 ( $\text{Na}_2\text{CO}_3$ ) 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 ( $\text{ZnCO}_3$ )

### Lapis Haematites

Hematite ( $\text{Fe}_2\text{O}_3$ )

### Lapis Infernalis

Fixed vegetable alkali, I., potassium carbonate ( $\text{K}_2\text{CO}_3$ )

### Lapis Philosophorum

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

### Lapis Ponderous

Calcium tungstate ( $\text{CaWO}_4$ )

### 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 ( $\text{CH}_4$ )

### Light Inflammable Air

Hydrogen ( $\text{H}_2$ )

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 flourescent.

Lignum Vitae

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

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 (CaCO<sub>3</sub>)

Lime, Quick

Calcium oxide (CaO)

Lime, Slaked )

Limestone

Calcium carbonate (CaCO<sub>3</sub>)

Lime Water

A solution of calcium carbonate (CaCO<sub>3</sub>)

Liquescent (Salts)

See Deliquescence.

Liquor Fumans Boyle (Spiritus Fumans Boyle)

Ammonium polysulphide ((NH<sub>4</sub>)S<sub>2</sub>; (NH<sub>4</sub>)<sub>2</sub>S<sub>5</sub>).

Liquor Fumans Libavh (Fuming Liquor of Libavius)

Stannic chloride (SnCl<sub>4</sub>).

Liquor of Flints

See Liquor Silicum.

Liquor Hoffman

A mixture of ethanol and ether.

Liquor of Liravius

See smokinf spirit of Libavius.

Liquor Silicum (Liquor of Flints)

A solution of potassium silicate (K<sub>2</sub> SiO<sub>3</sub>). Sometimes Used for other soluble silcates.

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 (Sb<sub>2</sub>S<sub>3</sub>). 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 carbonatee with sulphur. Not a true compound, it is a metastable mixture of potassium polysulfides and sulfate. (K<sub>2</sub>S, K<sub>2</sub>S<sub>2</sub>, K<sub>2</sub>S<sub>3</sub>, K<sub>2</sub>S<sub>4</sub>, K<sub>2</sub>S<sub>5</sub>, K<sub>2</sub>SO<sub>4</sub>)

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, (CH<sub>3</sub>CH<sub>2</sub>OH) 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 filings (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, Mercurious Sublimatus Dulcis, Mild Mercury)  
Mercurous chloride (Hg<sub>2</sub>Cl<sub>2</sub>).

Mercurius Praecipitatus Per Se  
Mercuric oxide (HgO).

Mercurius Praecipitatus Ruber  
Mercuric oxide (HgO).

Mercurius Solubilis Hahnemanni  
Mercuric oxide (Hg<sub>2</sub>O).

Mercurius Sublimatus Dulcis (Calomel, Mercurius Dulcis, Mild Mercury)  
Mercurous chloride (Hg<sub>2</sub>Cl<sub>2</sub>).

Mercurius Sublimatus Rubeus non Corrosivas  
Mercuric oxide (HgO).

Mercurius Vitae  
Mixture of antimony oxychloride and antimony oxides (Sb<sub>2</sub>O<sub>3</sub>; Sb<sub>2</sub>O<sub>4</sub>, Sb<sub>2</sub>O<sub>5</sub>, SbOCl). In some contexts the term may mean just antimony oxychloride (SbOCl).

Mercurius Vitae Antimonii  
Mixture of antimony oxychloride and antimony oxide (Sb<sub>2</sub>O<sub>3</sub>; Sb<sub>2</sub>O<sub>5</sub>, 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)<sub>3</sub>AlFeSi<sub>3</sub>O<sub>10</sub>(OH, F)<sub>2</sub>.

Microcosmic Salt  
Sodium ammonium phosphate (NaNH<sub>4</sub>HPO<sub>4</sub> · 4H<sub>2</sub>O).

Mild Alkali  
Alkalies which produce effervescence with acids; i.e., carbonates (-CO<sub>3</sub><sup>2-</sup>)

Mild Calcareous Earth  
Calcium carbonate (CaCO<sub>3</sub>).

Mild Magnesian Earth  
Magnesium carbonate (MgCO<sub>3</sub>).

Mild Mercury  
Mercurous chloride (Hg<sub>2</sub>Cl<sub>2</sub>).

Mild Vegetable Alkali  
Potassium carbonate (K<sub>2</sub>CO<sub>3</sub>).

Milk of Lime  
Calcium hydroxide (suspension) (Ca(OH)<sub>2</sub>).

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 (NH<sub>4</sub>C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>).

Mineral Alkali  
Sodium carbonate (Na<sub>2</sub>CO<sub>3</sub>).

Mineral Anodyne of Hoffman (Liquor of Hoffman)  
A mixture of ethanol and ether (C<sub>2</sub>H<sub>5</sub>OH), (CH<sub>3</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub>).

Mineral Crystal  
Sal prunella = potassium nitrate with a small admixture of potassium sulfate (HNO<sub>3</sub>; K<sub>2</sub>SO<sub>4</sub>).

Minium (Red Lead)



- Lead tetroxide ( $\text{Pb}_3\text{O}_4$ ).
- 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 ( $\text{MoS}_2$ ).
- 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 ( $\text{SnS}_2$ ).
- Mucilagenous Matter  
Any semisolid material that was soft, moist, and viscous.
- Mundic (Mundick)  
Iron pyrites ( $\text{FeS}_2$ ). Sometimes used for other pyrites or as a general term for pyrites.
- Muriates  
Chlorides ( $-\text{Cl}^-$ ).
- Muriatic Acid  
Hydrochloric acid ( $\text{HCl}$ ).
- 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 ( $\text{Na}_2\text{CO}_3$ ) and sodium bicarbonate ( $\text{NaHCO}_3$ ) 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 ( $\text{KH}_2\text{AsO}_4$ ).
- 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 ( $\text{ZnO}$ ).
- Nitrated Earths, Metals, etc.  
Nitrates ( $-\text{NO}_3$ ).
- Nitre (Common Nitre)  
Potassium nitrate ( $\text{KNO}_3$ ).
- 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 ( $\text{HNO}_2$ ).
- Nitro-Aerial Spirit  
The hypothetical subtle substance which was thought by some to be responsible for the ability to nitre to support combustion and to be a key component of detonations
- Nitrous Acid  
Nitrous Acid ( $\text{HNO}_3$ ).
- Nitrous Acid Vapor (Priestly)  
Nitrogen Dioxide ( $\text{NO}_2$ ).
- Nitrous Air (Priestly)  
Nitric Oxide ( $\text{NO}$ )
- Nitrous Ether  
Ethyl nitrite ( $\text{CH}_3\text{CH}_2\text{NO}_2$ ).
- Nitrous Gas (Lavoisier)  
Nitric Oxide ( $\text{NO}$ )
- Nitrum Aegypticum  
Sodium Carbonate ( $\text{Na}_2\text{CO}_3$ ).
- Nitrum Antimoniatum  
Product containing potassium nitrate, nitrite, and antimonate.
- Nitrum Commune  
See common Nitre
- Nitrum Cubic  
See Cubic Nitre
- Nitrum Fixatum (Nitrum Fixum, Fixed Nitre)  
An often impure preparation of potassium carbonate ( $\text{K}_2\text{CO}_3$ ).
- Nitrum Flammans  
Ammonium Nitrate ( $\text{NH}_4\text{NO}_3$ ).
- Nitrum Regeneratum  
Potassium nitrate ( $\text{KNO}_3$ ).
- 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 ( $\text{KNO}_3$ ;  $\text{K}_2\text{SO}_4$ ).
- Nitrum Vitriolatum  
Mixture of potassium nitrate and potassium bisulfate ( $\text{K}_2\text{SO}_4$ ;  $\text{KHSO}_4$ ).
- 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  $\text{Fe}_2\text{O}_3$ . Silicates, carbonates, sulfates, etc. also were commonly present with these oxides.
- Ochroite  
Cerium Oxide ( $\text{CeO}_2$ ).
- Offa Helmonth  
Potassium Carbonate ( $\text{K}_2\text{CO}_3$ ).
- Oil  
Any relatively insoluble, inflammable, somewhat viscous liquid.

- Oil Gas  
Mixture of methane, carbon monoxide, and butylene ( $\text{CH}_4$ ,  $\text{CO}$ ,  $\text{C}_4\text{H}_8$ ).
- Oil of Arsenic  
Arsenic trichloride ( $\text{AsCl}_3$ )
- Oil of Chalk  
Calcium chloride solution ( $\text{CaCl}_2$ ).
- 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 ( $\text{CaCl}_2$ ).
- 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 ( $\text{K}_2\text{CO}_3$ ).
- 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 ( $\text{H}_2\text{SO}_4$ ).
- Oil of Wine  
A hypothetical component of alcohol thought to give it its odor and inflammability
- Olea Terebinthina  
terpentine
- Olefiant Gas  
Ethylene ( $\text{C}_2\text{H}_2$ ).
- Oleum Dulce  
See Oil of Whine
- Oleum Sulphuris per Campanum  
Sulfuric Acid ( $\text{H}_2\text{SO}_4$ ) 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 ( $\text{As}_2\text{S}_3$ ).
- Oxycarburetted Hydrogen  
Water gas mixture or hydrogen ( $\text{H}_2$ ), carbon monoxide, ( $\text{CO}$ ), and carbon dioxide ( $\text{CO}_2$ ).
- Oxymuriatic Acid  
Chlorine ( $\text{Cl}_2$ ).

## P

- Panacea  
Potassium sulfate ( $\text{K}_2\text{SO}_4$ ).

Pan-Stone  
Calcium sulfate ( $\text{CaSO}_4$ ).

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

Pearl Ash  
The whitest potassium carbonate ( $\text{K}_2\text{CO}_3$ ) extracted from calcined plants. In a sense, then, pearl ash is purified potash.

Pearl White  
Bismuth oxychloride [ $\text{BiOCl}$ ].

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  
Sodium phosphate ( $\text{Na}_3\text{PO}_4$ ).

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 ( $\text{ZnO}$ ).

Philosophical Flowers of Vitriol  
Boric acid ( $\text{H}_3\text{BO}_3$ ).

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 ( $\text{HNO}_3$ ).

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 ( $\text{HCl}$ ).

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 ( $\text{HCl}$  to  $\text{HNO}_3$ ).

Phlegm  
A general term for any aqueous fraction of a distillation.

Phlogisticated Acid of Nitre  
Nitrous acid ( $\text{HNO}_2$ ).

Phlogisticated Acid of Vitriol  
Sulphurous acid ( $\text{H}_2\text{SO}_3$ ).

Phlogisticated Air  
Nitrogen ( $\text{N}_2$ ).

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) ( $\text{FeO}$ ).

Phlogisticated Earth of Molybdaena  
The solid reduction of molybdic acid.

Phlogisticated Manganese  
Manganous carbonate ( $\text{MnCO}_3$ ).

Phlogisticated Nitre  
Impure potassium nitrite ( $\text{KNO}_2$ ).

Phlogisticated Nitrous Acid  
Nitrous acid ( $\text{HNO}_2$ ).

Phlogisticated Vitriolic Acid  
Sulfurous acid ( $\text{H}_2\text{SO}_3$ ).

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 ( $\text{H}_2$ ).

Phosphorated Iron  
Ferric phosphate ( $\text{FePO}_4$ ).

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

Phosphorated Vegetable Alkali  
Potassium phosphate ( $\text{K}_3\text{PO}_4$ ).

Phosphorous  
Sometimes used for any phosphorescent substance.

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

Phosphorous of Homberg  
Calcium chloride ( $\text{CaCl}_2$ ).

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

Pierre Infernale  
Fused silver nitrate ( $\text{AgNO}_3$ ). [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 ( $\text{PbCl}_2$ ).

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 ( $\text{ZnO}$ ).

Ponderous Spar  
Barium Sulfate ( $\text{BaSO}_4$ ).

Pot Ash  
Potassium carbonate ( $\text{K}_2\text{CO}_3$ ).

Powder of Algaroth  
Antimony oxychloride ( $\text{SbOCl}$ )

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

Praecipitate Per Se  
Mercuric Oxide ( $\text{HgO}$ ).

Praecipitatus Albus  
Mercurous chloride ( $\text{Hg}_2\text{Cl}_2$ ).

Praecipitatus Vigonis  
Mercuric Oxide ( $\text{HgO}$ ).

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 ( $\text{SbOCl}$ ).

**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 ( $\text{Al}_2\text{O}_3$ ).

**Pure Ponderous Earth**

Baryta. Barium Oxide. ( $\text{BaO}$ )

**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 ( $\text{FeS}_2$ ).

**Pyroligneous Acid**

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

**Pyroligneous Spirit**

Methyl alcohol ( $\text{CH}_3\text{OH}$ ).

## **Q**

**Quadrangular Nitre**

Sodium Nitrate ( $\text{NaNO}_3$ ).

**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 ( $\text{SiO}_2$ ). Its color and other aspects of its appearance depended on the impurities present.

**Quicklime**

Calcium oxide ( $\text{CaO}$ ).

**Quicksilver**

Mercury (Hg).

**Quicksilver Calcined Per Se**

Mercuric oxide ( $\text{HgO}$ ).

**Quintessence**

A mixture of an essential oil and alcohol.

**Quintessence of Lead**

Acetone ( $\text{CH}_3\text{COCH}_3$ ).

## **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 ( $\text{As}_2\text{S}_2$ ).

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 ( $\text{As}_2\text{S}_2$ ).

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 ( $\text{Sb}_2\text{S}_3$ ).

Red Ochre

A mineral solid approximately 95 percent red iron oxide ( $\text{Fe}_2\text{O}_3$ ). An old and important pigment.

Red Precipitate

See Red Precipitate of Mercury.

Red Precipitate of Mercury

Impure mercuric oxide ( $\text{HgO}$ ).

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 ( $\text{KCl}$ ).

Regenerated Sea Salt

Potassium chloride ( $\text{KCl}$ ).

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 ( $\text{K}_2\text{CO}_3$ ).

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 ( $\text{SiO}_2$ ).

Rog

Concentrated native vegetable acid. From the usual preparations, it would be primarily citric acid ( $\text{C}_6\text{H}_8\text{O}_7$ ).

Roman Vitriol

Copper sulfate ( $\text{CuSO}_4$ ). In Britain this term was sometimes used for ferrous sulfate ( $\text{FeSO}_4$ ).

Russian Pot Ash

Potassium carbonate ( $\text{K}_2\text{CO}_3$ ).

Rust of Copper

See Verdigris.

## S

Saccharated Lime

Calcium oxalate ( $\text{CaC}_2\text{O}_4$ ).

Saccharum Saturni

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

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 ( $\text{Fe}_3\text{O}_4 \cdot x\text{H}_2\text{O}$ ) or ferric sulfide ( $\text{Fe}_2\text{S}_3$ ).

Saffron of Metal

A mixture of antimony sulfide ( $\text{Sb}_2\text{S}_3$ ), nitre ( $\text{KNO}_3$ ), and antimony sulfate ( $\text{Sb}_2(\text{SO}_4)_3$ ).

Sal Absinthi (Salt of Wormwood)

Mostly potassium carbonate ( $\text{K}_2\text{CO}_3$ ).

Sal Albus

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

Sal Alkali Vitriolatum

Potassium sulfate ( $\text{K}_2\text{SO}_4$ ).

Sal Alkanus Vegetabilis

Potassium carbonate ( $\text{K}_2\text{CO}_3$ ).

Sal Amarum

Magnesium sulfate ( $\text{MgSO}_4$ ).

Sal Ammoniac (Sal Armoniac)

Ammonium chloride ( $\text{NH}_4\text{Cl}$ ). Sometimes used for other ammonium salts.

Sal Ammoniacum Fixum

Calcium chloride ( $\text{CaCl}_2$ )

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 ( $(\text{NH}_4)_2\text{CO}_3$ ).

Sal Anglicum (Epsom Salt)

Magnesium sulfate ( $\text{MgSO}_4$ ).

Sal Catharticum

Magnesium sulfate ( $\text{MgSO}_4$ ).

Sal Catharticum Amarum

Magnesium sulfate ( $\text{MgSO}_4$ ).

Sal Catholicum

Potassium sulfate ( $\text{K}_2\text{SO}_4$ ).

Sal de Duobus

Potassium sulfate ( $\text{K}_2\text{SO}_4$ ).

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

Sal Digestiv  
Potassium chloride (KCl).

Sal di Modena  
Magnesium sulfate (MgSO<sub>4</sub>).

Sal Diureticus  
Potassium acetate (KC<sub>2</sub>H<sub>3</sub>O<sub>2</sub>).

Sal Duplicatum  
Potassium sulphate (K<sub>2</sub>SO<sub>4</sub>).

Sal Enixum  
Potassium sulfate (K<sub>2</sub>SO<sub>4</sub>).

Sal Epsom (Epsom Salt)  
Magnesium sulfate (MgSO<sub>4</sub>).

Sales Medii  
See Sal Medium.

Sales Salsi  
See Sal Salsam.

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

Sal Gentianae  
Mostly potassium carbonate (K<sub>2</sub>CO<sub>3</sub>).

Sal Glauber (Glauberís salt)  
Sodium sulfate (Na<sub>2</sub>SO<sub>4</sub>).

Sal Guaiaci ex Ligno  
Mostly potassium carbonate (K<sub>2</sub>CO<sub>3</sub>).

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

Salited Earths, Metals, etc.  
Chlorides (Cl<sup>-</sup>).

Sal Juniperi  
Mostly potassium carbonate (K<sub>2</sub>CO<sub>3</sub>).

Sal Kali (Sodium Carbonate)  
Soda (Na<sub>2</sub>CO<sub>3</sub>).

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 (FeSO<sub>4</sub>).

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 (Na<sub>2</sub>SO<sub>4</sub>).

Sal Nitriforme Inflammable  
Probably ammonium nitrate ((NH<sub>4</sub>)NO<sub>3</sub>).

Sal Nitrii  
Potassium nitrate (KNO<sub>3</sub>).

Sal Perlatum  
Sodium phosphate (Na<sub>2</sub>PO<sub>4</sub>).

Sal Polychrestrum

- 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 Sapiientiae  
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 ( $\text{C}_7\text{H}_5\text{O}_4$ ).

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 ( $\text{NH}_4\text{OH}$ ), 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 ( $\text{CaCO}_3$ ) precipitated from limewater (calcium hydroxide solution,  $\text{Ca}(\text{OH})_2$ ) by a carbonate compound.

Salt of Mars  
Most often used for ferrous sulfate ( $\text{FeSO}_4$ ). 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 ( $\text{NH}_4\text{OH}$ ).

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 oxylate ( $\text{KHC}_2\text{O}_4$ ).

Salt of Steel  
Loosely applied to various iron salts. Most commonly applied to martial vitriol. (Ferrous Sulfate;  $\text{FeSO}_4$ ).

Salt of Sulphur  
Impure potassium sulfate ( $\text{K}_2\text{SO}_4$ ).

Salt of Sylvius (Febrifugal Salt of Sylvius)  
Potassium chloride ( $\text{KCl}$ ).

Salt of Tachenius  
Impure potassium and sodium carbonates ( $\text{K}_2\text{CO}_3$ ,  $\text{Na}_2\text{CO}_3$ ) obtained from the incomplete combustion of plant products. These salts contained organic impurities.

Salt of Tartar  
Potassium carbonate ( $\text{K}_2\text{CO}_3$ ).

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 ( $\text{CaB}_4\text{O}_7$ ).

Sedlitz Salt (Epsom Salt)  
Magnesium Sulphate ( $\text{MgSO}_4$ ).

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 ( $\text{CaSO}_4$ ).

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 spearatory funnel and often used for similiar purposes.

Serpentine  
A steatite, usually green.

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

Siderum  
Iron phosphide ( $\text{Fe}_3\text{P}$ ).

Silex  
Silicon dioxide ( $\text{SiO}_2$ ).

Silicious Earth (Silcia)  
Silicon dioxide ( $\text{SiO}_2$ ).

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

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

Smalt  
A blue, glassy substance used as a pigment. The blue comes from cobaltous oxide ( $\text{CuO}$ ). Smalt also contains silica ( $\text{SiO}_2$ ).

Smelting  
The process of extracting a metal from its ore.

Smo(a)king Spirit of Libavius  
Primarily stannous chloride ( $\text{SnCl}_2$ ) but with chlorides of mercury mixed in.

Smo(a)king Spirit of Nitre  
Concentrated nitric acid ( $\text{HNO}_3$ ).

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 ( $\text{MnO}_2$ ) 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 ( $\text{Na}_2\text{CO}_3$ )

Soda Baryllia (Spanish)  
Sodium carbonate ( $\text{Na}_2\text{CO}_3$ )

Soda Hispanica (Washing Soda)  
Sodium carbonate ( $\text{Na}_2\text{CO}_3$ )

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) ( $\text{CuSO}_4$ ;  $\text{FeSO}_4$ ).

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

Spanish White  
Bismuth oxychloride (or oxynitrate) ( $\text{BiOCl}$ ;  $\text{BiONO}_3$ )

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 ( $\text{CaSO}_4$ ).

Spathic Iron Ore  
Ferrous carbonate ( $\text{FeCO}_3$ )

Specificum Purgans Paracelsi  
Potassium sulfate ( $\text{K}_2\text{SO}_4$ )

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 ( $\text{H}_2\text{SO}_4$ ) 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 ( $\text{NH}_4\text{O}_4$ ).

Spirit of Libavius  
Stannic chloride ( $\text{SnCl}_4$ ).

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 ( $\text{KNO}_3$ ).

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 ( $\text{KCl}$ ).

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 ( $\text{H}_2\text{SO}_4$ ).

Spiritus Vitrioli  
See Spirit of Vitriol.

Spiritus Vitrioli Coagulatus  
Potassium sulfate ( $\text{K}_2\text{SO}_4$ ).

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 ( $\text{CH}_4$ ).

Stamping  
Crushing of ores.

Stannum Anglici  
Tin ( $\text{Sn}$ ) from England.

Stannum Glaciale  
Bismuth ( $\text{Bi}$ )

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 ( $\text{Sb}_2\text{S}_3$ ).
- Stick Laque  
See Lac.
- Stinking Sulphureous Air  
Hydrogen sulphide ( $\text{H}_2\text{S}$ ).
- Stone of bologna  
A variety of barium sulfate ( $\text{BaSO}_4$ ) 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 ( $\text{HNO}_3$ ).
- Spirit of Ammoniac  
Ammonia ( $\text{NH}_3$ ), or ammonium hydroxide solution ( $\text{NH}_4\text{OH}$ ).
- Spirit of Salt  
hydrochloric acid ( $\text{HCl}$ ).
- Spirit of Saturn  
Impure acetone made from lead acetate ( $\text{CH}_3\text{COCH}_3$ ).
- Spirit of Sea-Salt  
Hydrochloric acid ( $\text{HCl}$ ).
- Spirit of Sulfer  
Mixture of sulfuric and sulfurous acids ( $\text{H}_2\text{SO}_4$ ;  $\text{H}_2\text{SO}_3$ ).
- 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 ( $\text{H}_2\text{SO}_4$ ) and/ or sulfurous acid ( $\text{H}_2\text{SO}_3$ ).
- Strontia  
Strontium oxide ( $\text{SrO}$ ).
- 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 ( $\text{Fe}_2\text{O}_3$ ).
- 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 (Stibiater 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 Nitratus

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 ( $\text{Fe}_2\text{O}_3$ ).

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 ( $\text{KC}_2\text{H}_3\text{O}_2$ )<sub>2</sub>.

Terra Francisca  
Assorted sulfates (e.g.,  $\text{FeSO}_4$ ,  $\text{CuSO}_4$ ).

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

Terra Ponderosa  
Barium sulfate ( $\text{BaSO}_4$ ).

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

Terra Ponderosa Aerata  
Barium carbonate ( $\text{BaCO}_3$ ).

Terra Ponderosa Molybdaenata  
Barium molybdate ( $\text{BaMoO}_4$ ).

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 ( $\text{KOH}$ ) 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 ( $\text{CH}_3\text{COCH}_3$ ).

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 ( $\text{FeCl}_3$ ).

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."
- Tournsole**  
See Turnsol.
- Triplesalts**  
Salts which seemed to have three components rather than the usual two, e.g., alum ( $KAl(SO_4)_2 \cdot 12H_2O$ ).
- 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 ( $CaWO_4$ )
- Turmaric**  
A powder made from the root of the imported East Indian plant *Curcuma Longa*.
- Turners Yellow**  
Yellow lead oxychloride ( $PbCl_2 \cdot 3PbO$ ).
- 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 ( $HgSO_4 \cdot 2HgO$ ).
- 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 ( $\text{MnO}_2$ ). 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 ( $\text{SO}_2$ ).
- 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 ( $\text{As}_2\text{O}_3$ )
- 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 ( $\text{CH}_3\text{COOH}$ ), 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 ( $\text{K}_2\text{CO}_3$ ).
- 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,  $\text{HgS}$ ). 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<sub>2</sub>)

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<sub>4</sub>), 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<sub>4</sub>)

Vitriol, Green  
Ferrous (or iron) sulfate (FeSO<sub>4</sub>)

Vitriol, White  
Zinc sulfate (ZnSO<sub>4</sub>)

Vitriol (or Vitriolic) Acid  
Sulphuric acid (H<sub>2</sub>SO<sub>4</sub>)

Vitriolated Earths, Metals, etc.  
Sulphates.

Vitriolated Ether  
Diethyl ether (C<sub>4</sub>H<sub>10</sub>O).

Vitriolated Tartar  
Potassium sulfate (K<sub>2</sub>SO<sub>4</sub>)

Vitriolic Ether  
Diethyl ether (C<sub>4</sub>H<sub>10</sub>O).

Vitriol of Goslar (White Vitriol)  
Zinc sulfate (ZnSO<sub>4</sub>)

Vitriol of Jove  
Stannous sulfate (SnSO<sub>4</sub>)

Vitriol of Jupiter  
Stannous acetate (Sn(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>)

Vitriol of Mars (Green Vitriol)  
Ferrous sulfate (FeSO<sub>4</sub>)

Vitriol of Quick Silver  
Mercuric nitrate (Hg(NO<sub>3</sub>)<sub>2</sub>)

Vitriol of Saturn  
Lead acetate (Pb(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>)

Vitriol of Silver  
Occasionally, early in the century, silver nitrate (AgNO<sub>3</sub>). As the century progressed, the term was more reasonably applied to silver sulfate (Ag<sub>2</sub>SO<sub>4</sub>)

Vitriol of Venus  
Cupric sulfate (CuSO<sub>4</sub>)

Vitriolum Album  
See White Vitriol.

Vitriolum Ammonium  
Ammonium sulfate ((NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>)

Vitriolum Anglicum  
Ferrous sulfate (FeSO<sub>4</sub>)

Vitriolum Veneris cum Alkali Fixo Praecipitatum  
Basic copper acetate (Cu(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub> · CuO · 6 H<sub>2</sub>O)

Vitrium Antimonii (Glass of Antimony)

- Fused antimony oxide ( $\text{Sb}_2\text{O}_3$ )
- 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 ( $\text{HNO}_2$ )
- Volatile Acid of Sulfur (Phlogisticated Vitriolic Acid)**  
Sulfurous acid ( $\text{H}_2\text{SO}_3$ )
- Volatile Alkali**  
A term most commonly used for solutions of ammonia; e.g., ammonium hydroxide.
- Volatile Alkali in its Concrete Form**  
Ammonium carbonate ( $\text{NH}_4\text{CO}_3$ )
- 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 ( $\text{NH}_4\text{CO}_3$ )
- Volatile Spirit of Sal Ammoniac**  
Ammonium hydroxide ( $\text{NH}_4\text{OH}$ ) 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 ( $\text{H}_2$ ) and carbon monoxide ( $\text{CO}$ )
- 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 ( $\text{As}_2\text{O}_3$ )
- White Calx of Antimony**  
Mixture of antimony oxide ( $\text{Sb}_2\text{O}_3$ ) and potassium oxide ( $\text{K}_2\text{O}$ ).
- White Copper**  
An alloy of arsenic (As), copper (Cu), and zinc (Zn).
- White Copperas**



- Zinc sulphate ( $\text{ZnSO}_4$ )
- White Lead  
Basic lead carbonate ( $\text{Pb}(\text{CO}_3)_2 \cdot \text{Pb}(\text{OH})_2$ )
- White Manganese  
Manganous carbonate ( $\text{MnCO}_3$ )
- White Precipitated Mercury (Precipitate of Sublimate of Mercury)  
Mercurammonium chloride ( $\text{HgNH}_2\text{Cl}$ )
- White Vitriol  
Zinc sulphate ( $\text{ZnSO}_4$ )
- 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 ( $\text{BaCO}_3$ ).
- 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 ( $\text{K}_2\text{CO}_3$ )
- 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 ( $\text{HNO}_3$ ).
- Yellow Arsenic  
Arsenious sulphide ( $\text{As}_2\text{S}_3$ ).
- 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 ( $\text{Y}_2\text{O}_3$ ).
- Z**
- Zaffre (Saffre)  
A gray or reddish powder composed mostly of cobalt oxide ( $\text{CoO}$ ).
- 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.

