

18th Century Chemical Terms List

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 (C₃H₆O₃).

Acid of Milk-Sugar

Mucic acid (COOH(CHOH)₄COOH).

Acid of Molybdaena

Molybdic acid (H₂MoO₄).

Acid of Nitre

Nitric acid (HNO₃).

Acid of Phosphorus

Phosphoric acid (H₃PO₄).

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 (C₄H₆O₆).

Acid of Tartar

Tartaric acid.

Acid of Urine

Phosphoric acid (H₃PO₄)

Acid of Vinegar

Acetic acid (CH₃COOH).

Acid of Vitriol

Sulfuric acid (H₂SO₄)

Acidium Aereum

Carbon dioxide (CO₂).

Acidium Mephiticum

Carbon dioxide (CO₂).

Acidium Pingue

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

Acidium Sacchari

Oxalic acid (COOH COOH).

Acid Vitriolated Tartar

Potassium hydrogen sulphate (KHSO₄).

Adopters

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

Aduration

A union or combination into one.

Aerated Alkali

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

"Aerated" Compounds (Bergman)

Carbonates (CO_3^{2-}).

Aerated Lime

Calcium carbonate ($CaCO_3$).

Aerated Water

Water containing dissolved carbon dioxide.

Aer Hepaticus

Hydrogen sulfide (H_2S).

Aerial Acid

Carbon dioxide (CO_2).

Aerugo (Aeruca) (Rust of Copper)

See Verdigris.

Aer Urinosum

Ammonia (NH_3).

Aethiops Mercuriales

See Aethiops Mineralis.

Aethiops Mineralis (Aethiops Mercuriales)

Black mercuric sulphide (H_2S).

Air

Generally, any substance in gaseous state.

Air (Priestley)

A gaseous substance which could not be liquified by cold.

Air, Dephlogisticated

Oxygen (O_2).

Air, Fixed

Carbon dioxide (CO_2).

Air, Hepatic

Hydrogen sulphide (H_2S).

Air, Inflammable

Hydrogen (H_2).

Air, Marine Acid

Hydrogen chloride (HCl).

Air, Mephitic

Carbon dioxide (CO₂).

Air, Phlogisticated

Nitrogen (N₂).

Air, Vital

Oxygen (O₂).

Air of Flour Spar

Hydrofluoric acid gas (usually with silicon fluoride) (HF).

Air of Vitriol

Sulphur dioxide (SO₂).

Alaunerde

Alumina (Al₂O₃).

Alcohol

Usually spirit of wine (CH₃CH₂OH) (sometimes *any* very fine powder).

Alembic

A type of distillation apparatus.

Alexipharmic

A remedy or preservative against poison.

Alicant Kelp

Crude sodium carbonate (Na₂CO₃).

Alk. Min. Vitriol

Sodium sulphate (Na₂SO₄).

Alkahest

Originally, the universal solvent (alchemical term)

Alkahest Glauber

See Fixed vegetable alkali (K₂CO₃)

Alkahest of Reapour

See fixed vegetable alkali (K₂CO₃)

Alkahest of Van Helmot (Glauber's Alkahest)

Concentrated potassium carbonate (K₂CO₃)

Alkalescent

Any substance which is slightly alkaline or turning alkaline

Alkali, Caustic

Hydroxides (OH⁻)

Alkali, Common mineral

Sodium Carbonate (Na₂CO₃ . 10H₂O)

Alkali, Concrete Volatile

Ammonium carbonate (NH₄)₂CO₃)

Alkali, Fossil

Sodium Carbonate (Na_2CO_3)

Alkali, Marine

Sodium Carbonate (Na_2CO_3)

Alkali, Mild

Carbonates (CO_3^{2-})

Alkali, Vegetable, Fixed

Potassium Carbonate (K_2CO_3)

Alkali, Vegetable, Mild

Potassium Carbonate (K_2CO_3)

Alkali, Volatile

Ammonia (NH_3)

Alkali of Soda

Sodium carbonate (Na_2CO_3)

Alkali of Tartar

Potassium Carbonate (K_2CO_3)

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."). ($\text{Al}_2(\text{SO}_4)_3 \cdot \text{K}_2\text{SO}_4 \cdot 24\text{H}_2\text{O}$); ($\text{Al}_2(\text{SO}_4)_3 \cdot (\text{NH}_4)_2\text{SO}_4 \cdot 24\text{H}_2\text{O}$); ($\text{Al}_2(\text{SO}_4)_3 \cdot \text{Na}_2\text{SO}_4 \cdot 24\text{H}_2\text{O}$).

Alumen

Aluminum sulphate ($\text{Al}_2(\text{SO}_4)_3$).

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 (CaCl_2)

Ammonium Nitrosum

Ammonium nitrate (NH_4NO_3)

Animal Alkali

Ammonium carbonate [$(\text{NH}_4)_2\text{CO}_3$]

Anodyne

A medicine or drug which alleviates pain.

Antichlor

Hydrated sodium thiosulfate ($\text{Na}_2\text{S}_2\text{O}_3$)

Antimonial Caustic

Antimony trichloride (SbCl_3)

Antimonium Diaphoreticum

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

Antimony

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

Antizeumic

Opposed to fermentation

Aqua Fortis

Concentrated nitric acid (HNO_3)

Aqua Phaganeda or Phagadenica

A mixture of corrosive sublimate and limewater

Aqua Regia

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

Aqua Secunda

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

Ardent Spirit

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

Argillaceous Earth

Clay

Aromatic Oil

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

Arsenic

Arsenic trioxide (As_2O_3)

Arsenical Sal Ammoniac

Ammonium arsenate $(\text{NH}_4)\text{HAsO}_4$.

Ash, Black

Impure sodium carbonate (Na_2CO_3).

Ash, Pearl

See Pearl Ash

Ash, Pot

See potash

Ashes of Tin

Stannic oxide (SnO_2)

Assay

A quantitative determination of the metal in an ore or alloy

Atramentum

Ferrous sulfate (FeSO_4)

Attrition

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

Auripigmentum

Arsenic trisulfide (As_2S_3)

Aurum Fulminans

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

Avolation

Evaporation, escape, act of "flying away."

Azote

Nitrogen (N_2)

Azure

A blue pigment from cobalt

Azurite

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

B

Baking Soda

Sodium bicarbonate (NaHCO_3)

Balloons

Vessels used to receive condensation products in distillation.

Balneum Mariae

The water bath used for heating more delicate materials such as animal and vegetable mater.

Balsam

Light oily aromatic ext racts from trees which cure into resins.

Barilla

Impure soda extracted from soap-wort (impure Na₂CO₃)

Barite, Baryte(s)

Barium sulfate (BaSO₄)

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 (Fe₄[Fe(CN)₆]₃).

Berlin Green

Ferric ferricyanide (Fe[Fe(CN)₆]).

Berthollet's Salt

Potassium chlorate (KClO₃).

Bezoardicum Minerale

See Bezoar Mineral.

Bezoar Mineral

Antimonic acid (H₃SbO₄).

Bismuth Corne

Bismuth oxychloride (BiOCl).

Bitter Cathartic Salt

Magnesium sulfate (MgSO₄).

Bitter Earth

Magnesium oxide or carbonate (MgO; MgCO₃).

Bittern

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

Bitter Salt

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

Bitter Spar

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

Bitumens

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

Black Ash

Impure sodium carbonate (impure Na_2CO_3)

Black Copper

Copper sulfide (CuS).

Black Flux

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

Black Jack

See Blend.

Black Lead

Natural graphite of the sort used in pencils.

Black Wad

Manganese dioxide.

Blend

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

Blind Head

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

BLUE VITRIOL

Copper sulfate (CuSO_4)

BOLE (OR BOLAR EARTH)

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

BORAX

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

BRASS

An alloy of copper and zinc.

BRAUSTEIN

Manganese dioxide (MnO_2).

BRIMSTONE

Sulphur (S).

BRONZE

An alloy of copper and tin.

BUDDLING DISH

A flat pan or vat used in washing ores.

BURNING SPIRIT OF SATURN

Impure acetone (CH_3COCH_3).

BURNT ALUM

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

BURNT LIME

See Quicklime.

BUTTER OF ANTIMONY

Deliquescent antimony trichloride (SbCl_3)

BUTTER OF ARSENIC

Arsenic trichloride (AsCl_3)

BUTTER OF TIN

Stannic chloride (SnCl_4)

BUTTER OF ZINC

Zinc chloride (ZnCl_2).

BUTYRUM ANTIMONII

See Butter of Antimony.

C**CADMIA**

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

CALAMINE

In its purest form, zinc carbonate (ZnCO_3)'

CALAMY (CALAMINE)

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

CALCAREOUS EARTH

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

CALCARIUM POTENTIALE

Potassium carbonate (K_2CO_3).

CALCIC LIVER OF SULFUR

Calcium sulfide (CaS).

CALCINATION

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

CALCINED METALS

Oxides.

CALCITE

Calcium carbonate (CaCO_3)

CALLUS

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

CALOMEL

Mercurous chloride (Hg_2Cl_2)

CALX

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

CALX ACETOSELL

Calcium oxalate (CaC_2O_4)

CALX AERATA

Calcium carbonate (CaCO_3)

CALX CITRATA

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

CALX MOLYBDAENATA

Calcium molybdate (CaMoO_4)

CALX OF ANTIMONY

Antimony trioxide (Sb_2O_3)

CALX OF GOLD

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

CALX OF STONE

Calcium oxide (CaO).

CALX PLUMBI AERATA

See White Lead.

CALX SACCHARATA

Calcium oxalate (CaC_2O_4).

CALX. TARTARISATA

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

CALX VIVA

Quicklime (CaO).

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 (Fe_2O_3)

CARBONATE OF LIME

Calcium carbonate (CaCO_3).

CARBONIC ACID

Carbon dioxide (CO_2).

CARBONIC OXIDE

Carbon monoxide (CO).

CARBURETTED HYDROGEN GAS

Methane (CH_4)

CATHARTIC SALT OF GLAUBER

Sodium sulphate (Na_2SO_4).

CAUSTIC ALKALIS

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

CAUSTIC BARYTA

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

CAUSTIC CALCAREOUS EARTH

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

CAUSTIC LEY (CAUSTIC LEES, ETC.)

See Caustic Lye.

CAUSTIC LYE

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

CAUSTIC PONDEROUS EARTH

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

CAUSTICUMi ANTIMONIALE

Probably antimony trichloride (SbCl_3)

CAWK

Barium sulphate (BaSO_4)

CEMENTATION

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

Cendres Gravellees

Potassium carbonate (K_2CO_2).

Ceruse (Cerussa) (Ceruse)

See White Lead.

Ceruse Antimony

White antimony trioxide (Sb_2O_3).

Chalk

Calcium carbonate (CaCO_3).

Chalybeate (Water)

Any water which is impregnated or flavored with iron. Chalybs cum Sulphure Preparatus
Ferrous sulfide (FeS).

Chalybs Tartar (Tartarified Iron)

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

Chymists Spirit

Any solution of ammonia (NH_4OH).

Cineres Clavellati

Potassium carbonate (K_2CO_3).

Cinnabar

Mercuric sulfide (HgS).

Cinnabar of Antimony

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

Circulation

Cyclic distillation or refluxing.

Citrated Alkalies

Citrates.

Clays

Any stiff but malleable and sticky mineral solid.

Clyssus

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

Coagulation

Reducing fluids to solid form.

Coagulum

A precipitate.

Cobalt

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

Cochineal

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

Coction

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

Cohobation

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

Colcothars

Any colorless sulfates (vitriols) in which the water of hydration was removed ($-SO_4$).

Colcothar

Ferric oxide (Fe_2O_3).

Colcothar Vitrioli

Red oxide of iron ($Fe_2O_3 \cdot FeO$) produced by heating green vitriol.

Collature

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

Colophony

A resinous substance from distillation of light oil from turpentine.

Common Ammoniac

Ammonium Chloride (NH_4Cl).

Common Caustic

Potassium hydroxide or, less often, sodium hydroxide.

Common Magnesia

Magnesium carbonate ($MgCO_3$).

Common Mineral Alkali

Sodium carbonate (Na_2CO_3).

Common Nitre (Saltpeter)

Potassium nitrate (KNO_3).

Common Salt

Sodium chloride ($NaCl$).

Concentration

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

Concreted

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

Concrete Volatile Alkali

Ammonium carbonate ($(NH_4)_2CO_3$).

Copperas

Originally blue vitriol. Later sometimes used for the entire class of vitriols (sulfates). Also sometimes ferrous sulfate ($FeSO_4 \cdot 7H_2O$).

Corneous (Horn) Lead

Lead chloride ($PbCl_2$).

Corning

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

Cornu Cervi

Impure ammonium carbonate ($(NH_4)_2CO_3$).

Corrosive Sublimate

Mercuric chloride (HgCl_2).

Coruscate

To give off intermittent flashes of light, to sparkle.

Cream of Lime

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

Cream of Tartar (Tartar)

Potassium hydrogen tartrate ($\text{KHC}_4\text{H}_4\text{O}_6$).

Creech

Calcium sulfate (CaSO_4).

Cremor

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

Creta Alba

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

Crocus

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

Crocus Martis

Ferric oxide (Fe_2O_3).

Crocus of Iron

Ferric oxide.

Crocus of Mars

Ferric oxide.

Crocus Saturni

Red lead (minium) (Pb_3O_4).

Crude Antimony

Natural antimony sulfide (Sb_2S_3).

Crude Flux

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 (Na_2CO_3).

Crystallised Verdigris

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

Crystallised Volatile Alkali

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

Crystallization

Any process in which crystals are formed from a liquid. Usually accomplished through

concentrating and/or cooling a solution.

Crystals of Copper

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

Crystals of Silver (Lunar Crystals)

Silver nitrate, usually as a powder (AgNO_3).

Crystals of Venus

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

Cubic Nitre

Crystallized sodium nitrate (NaNO_3).

Cucurbit

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

Cyprian Vitriol

Copper sulfate (CuSO_4).

D

Damps

Any dangerous vapors in caves, mines etc.

Decantation

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

Decoction

Continuous application of boiling heat to a reaction mixture.

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 (Cl₂).

Dephlogisticated Air

Oxygen (O₂).

Dephlogisticated Calx of Iron

Ferrous oxide (Hydroxide) (FeO or Fe(OH)₂).

Dephlogisticated Marine Acid

Chlorine (Cl₂).

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 an antimony oxide and potassium antimonate (Sb₂O₃; KSbO₃).

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 (N₂O).

Distillation

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

Distillation Per Ascensum

Distillation with the collecting vessel above the heated vessel.

Distillation Per Decensum

Any distillation where the collecting vessel is below the heated vessel.

Distillation Per Obliquum

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

Distillation with Addition

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

Diuretic Salt

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

Division

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

Docimacy

Assaying

Dry Way

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

Dulcification

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

E

Earth

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

Earth, Calcareous, Caustic

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

Earth, Calcareous, Mild

Calcium carbonate (CaCO_3)

Earth, Magnesian, Mild

Magnesium carbonate (MgCO_3)

Earth, Silicious

Silica (SiO_2)

Earth Rhubarb

Calcium oxalate (CaC_2O_4)

Earthy Salts

Compound of acids and earths.

Eau Forte

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

Ebullition

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

Edulcorated Quicksilver

Mercurous chloride (Hg_2Cl_2)

Edulcoration

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

Elaeosaccharum

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

Electuaries

Medicinals in the form of a paste or conserve.

Elixation

The action of boiling or stewing.

Elutriation

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

Emetic

Any substance that induces vomiting.

Emetic Powder

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

Emplastrum Simplex

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

Empyreumatic

Tasting or smelling 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 (MgSO_4)

English Salt

See Bitter Salt

Ens Martis

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

Ens Veneris

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

Epsom Salts

Magnesium sulfate (MgSO_4)

Essay

See Assay

Essence

Any essential oil.

Essential Oil

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

Essential Oil of Turpentine

The most volatile portion of turpentine.

Etain de Glace

Bismuth (Bi)

Ether

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

Ether of Benzoin

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

Ether of Nitre

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

Ether of Vinegar

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

Ether of Vitriol

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

Ethiops Mineral

Mostly black mercury sulfide (Hg_2S)

Evaporation

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

Exalt

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

Exsiccate

To dry; remove moisture.

Exhalation

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

Expression

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

Extemporaneous Alkali

See white flux.

Extraction

To separate one substance from others by using solvents.

Extract of Lead

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

Extract of Mars

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

Extravasation

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

F

Faints

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

Fearce

To pulverize or mascerate.

Febrifugal Salt

Potassium sulphate (K_2SO_4).

Febrifugal Salt of Sylvius

Potassium chloride (KCl).

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 ($\text{C}_6\text{H}_5\text{COOH}$).

Flores Martiales (Ens Veneris)

Impure ammonium chloride (NH_4Cl). Also includes iron filings used in the reaction, with possibly some chlorides of iron.

Flores Sulfurous

See Flowers of Sulfur.

Flores Viridis Aeris

Crystallized cupric acetate ($\text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2$).

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 ($\text{C}_6\text{H}_5\text{COOH}$).

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.

Fluor 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 ($KC_2H_3O_2$).

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 ($(NH_4)_2S_x$).

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(NO₃)₂).

German Ash

Potassium carbonate (K₂CO₃).

German Potash

Probably a mixture of potassium carbonate and oxide.

German Vitriol

An ore with both copper and ferrous sulfates (CuSO₄, FeSO₄).

Galacial Oil of Antimony (Butter of Antimony)

Antimony trichloride (SbCl₃).

Glass of (A Substance)

The fused form of the substance, especially if semitransparent.

Glass of Antimony

Probably antimony oxysulfate (Sb₂O₂SO₄). 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 (K₂CO₃(aq)).

Glauber's Sal Ammoniac

Ammonium sulphate (NH₄)₂SO₄).

Glauber's Spirit of Nitre

Fuming nitric acid (HNO₃).

Globuli Martiales

Iron powder boiled in cream of tartar solution. Presumably contains some ferrous tartrate (FeC₄H₄O₆). A pharmaceutical preparation of iron.

Glucinum

Beryllium (Be).

Golden Spirit of Sulphur

Ammonium sulphide ((NH₄)₂S).

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 (FeSO₄).

Grume(s) (Grumous)

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

Guaic (Guyac, Guacium)

A tropical wood sometimes used for the resinous extract of that wood.

Gum

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

Gum Acacia

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

Gum Arabic

The dried exudation of certain varieties of the acacia tree.

Gum Benzoin

The dried resin of the tree *Styrax benzoin*.

Gum Dragon

See Gum Tragacanth.

Gum Lac

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

Gum Tragacanth (Gum Dragon)

Dried gummy exudation of the tree *Astragalus gummifer* and related species.

Gypseous Earths

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

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 (CaSO₄ · 2H₂O).

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 (C₂H₄).

Heavy Earth

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

Heavy Inflammable Air

Used at various times for (a) carbon monoxide (CO), (b) water gas (a mixture of H₂ and CO), or (c) methane (CH₄).

Heavy Spar

Barium sulfate (BaSO₄).

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 (Sb₂S₃).

Hepar Calcis

Calcium sulfide (CaS).

Hepars

Sulfides (-S²⁻)

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 (K₂S, K₂S₂, K₂S₃, K₂S₄, K₂S₅, K₂SO₄).

Hepatic Air

Hydrogen sulfide gas (H₂S).

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.

Homborg's

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

Horn (Corneous) Lead

Lead chloride (PbCl_2).

Horn Mercury

Chloride of mercury (HgCl_2 ; Hg_2Cl_2).

Horn Silver (Luna Cornea)

Fused silver chloride (AgCl).

Horn Tin

Stannous chloride (SnCl_2).

Hungarian Vitriol

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

Hydromel

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

I**Iceland Spar (Calcite)**

A particular crystal form of calcium carbonate (CaCO_3).

Icy Butter

Antimony chloride (SbCl_3).

Imbibition

To soak or saturate with a liquid.

Infernal Stone

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

Inflammable Air

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

Inflammable Air from Metals Hydrogen (H_2).

Infusion

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

Insolation

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

Inspissate To thicken or condense.

Intermediate Salt of the Ley of Blood

Potassium ferrocyanide ($K_4Fe(CN)_6$).

Intermediate Salts

Usually normal salts; occasionally acid salts.

Intermedium

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

Intumescence

The process of swelling up.

Ipecacuanha

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

Iron Ochre

A mixture of silica, clay, and various oxides of iron. In red ochre the oxide is simple Fe_2O_3 ; in yellow ochre it is $Fe_2O_3 \cdot H_2O$.

Iron Vitriol

Ferrous sulphate ($FeSO_4$).

Isinglass

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

Ivory-Black

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

J

Jalap

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

James' Powder

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

Japanning

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

Jove (of Jove)

Tin, or some compound or alloy of tin.

K

Kali

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

Kaolin

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

Kelp

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

Kermes Mineral

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

L

Lac (Laque)

A relatively thick solution of a colorant or coating.

Lac Sulphuris

See milk or sulphur.

Lapis Calaminarius (Calamine)

Mineral form of Zinc Carbonate (ZnCO_3)

Lapis Haematites

Hematite (Fe_2O_3)

Lapis Infernalis

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

Lapis Philosophorum

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

Lapis Ponderous

Calcium tungstate (CaWO_4)

Lapis Septicus

Potassium hydroxide (KOH)

Lapis Serpentin

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

Laque

See Lac.

Laudanum

Any medicinal preparation with opium as a primary ingredient.

Lead-Glance

Lead sulphide (PbS)

Ley of (Ox-) Blood

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

Ley of Soapboilers

Potassium hydroxide (KOH)

Light Carburetted Hydrogen

Marsh gas or methane (CH₄)

Light Inflammable Air

Hydrogen (H₂)

Lignum Nephriticum

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

Lignum Vitae

"Tree of Life" The wood, and sometimes the resin, of several semitropical trees, but most often referring to *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 (CaCO₃)

Lime, Quick Calcium oxide (CaO) Lime, Slaked 2)

Limestone

Calcium carbonate (CaCO₃)

Lime Water

A solution of calcium carbonate (CaCO₃)

Liquescent (Salts)

See Deliquescence.

Liquor Fumans Boyle (Spiritus Fumans Boyle)

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

Liquor Fumans Libavh (Fuming Liquor of Libavius)

Stannic chloride (SnCl₄).

Liquor of Flints

See Liquor Silicum.

Liquor Hoffman

A mixture of ethanol and ether.

Liquor of Libavius

See smokinf spirit of Libavius.

Liquor Silicum (Liquor of Flints)

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

Litharge

Yellow lead oxide (PbO)

Lithomarge

Soft, claylike substances, such as kaolin.

Litmus

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

Liver of Antimony

Fused antimony sulfide (Sb_2S_3). Usually produced from the detonation of equal parts of crude antimony and potassium nitrate.

Liver of Arsenic

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

Liver of Sulphur (Hepar Sulphuris)

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

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, $\text{CH}_3\text{CH}_2\text{OH}$) 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 fillings (Fe) and cream of tartar ($\text{KHC}_4\text{H}_4\text{O}_6$).

Martial Ethiops

Hydrated ferrosferric oxide ($\text{Fe}_3\text{O}_4 \cdot x\text{H}_2\text{O}$).

Martial Extract

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

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 (CO₂).

Mercurius Calcinatus

Mercuric oxide (HgO).

Merc. Calcin. Nitrat

Mercuric nitrate (Hg(NO₃)₂).

Mercurius Corrosivus

Mercuric chloride HgCl₂.

Mercuric Corrosivus Ruber

Mercuric oxide (HgO).

Mercurius Dulcis (Calomel, Mercurious Sublimatus Dulcus, Mild Mercury)

Mercurous chloride (Hg₂Cl₂).

Mercurius Praecipitatus Per Se

Mercuric oxide (HgO).

Mercurius Praecipitatus Ruber

Mercuric oxide (HgO).

Mercurius Solubilis Hahnemanni

Mercuric oxide (Hg₂O).

Mercurius Sublimatus Dulcis (Calomel, Mercurius Dulcis, Mild Mercury)

Mercurous chloride (Hg₂Cl₂).

Mercurius Sublimatus Rubeus non Corrosivas

Mercuric oxide (HgO).

Mercurius Vitae

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

Mercurius Vitae Antimonii

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

Mercury of Life

See Mercurius Vitae.

Metallic Salt

Compound of a metal and an acid.

Miasma (Miasmata)

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

Mica

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

Microcosmic Salt

Sodium ammonium phosphate (NaNH₄HPO₄ · 4H₂O).

Mild Alkali

Alkalies which produce effervescence with acids; i.e., carbonates (-CO₃ 2⁻)

Mild Calcareous Earth

Calcium carbonate (CaCO_3).

Mild Magnesian Earth

Magnesium carbonate (MgCO_3).

Mild Mercury

Mercurous chloride (Hg_2Cl_2).

Mild Vegetable Alkali

Potassium carbonate (K_2CO_3).

Milk of Lime

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

Milk of Sulfur

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

Minderer's Spirit

A solution of ammonium acetate ($\text{NH}_4\text{C}_2\text{H}_3\text{O}_2$).

Mineral Alkali

Sodium carbonate (Na_2CO_3).

Mineral Anodyne of Hoffman (Liquor of Hoffman)

A mixture of ethanol and ether ($\text{C}_2\text{H}_5\text{OH}$), ($\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3$).

Mineral Crystal

Sal prunella = potassium nitrate with a small admixture of potassium sulfate (HNO_3 ; K_2SO_4).

Minium (Red Lead)

Lead tetroxide (Pb_3O_4).

Mixt

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

Mixtura Salina

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

Mofette

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

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

Molybdaena

Native molybdenum sulfide (MoS_2).

Mordant

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

Mortify

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

Mosaic Gold

Stannic sulfide (SnS_2).

Mucilagenous Matter

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

Mundic (Mundick)

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

Muriates

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

Muriatic Acid

Hydrochloric acid (HCl).

Muriatic Ether

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

N

Naples Yellow

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

Naptha

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

Natrium

Sodium.

Natron (Natrum)

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

Neutral Arsenical Salt of Macquer

Potassium dihydrogen arsenate (KH_2AsO_4).

Neutral Salts

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

Nihil Album (sometimes just Nihil)

Flowers of zinc, zinc oxide (ZnO). Nitrated Earths, Metals, etc. Nitrates ($-\text{NO}_3$).

Nitre (Common Nitre)

Potassium nitrate (KNO_3).

Nitre Fixed by Tartar

A mixture of nitre and tartar left after reaction between the two.

Nitre with an earthy base

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

Nitreum (Bergman)

Nitrous acid (HNO_2).

Nitro-Aerial Spirit

The hypothetical subtle substance which was thought by some to be responsible for the ability to nitre to support combustion and to be a key component of detonations Nitrous Acid Nitrous Acid (HNO₃).

Nitrous Acid Vapor (Priestly)

Nitrogen Dioxide (NO₂).

Nitrous Air (Priestly)

Nitric Oxide (NO)

Nitrous Ether

Ethyl nitrite (CH₃CH₂NO₂).

Nitrous Gas (Lavoisier)

Nitric Oxide (NO)

Nitrum Aegypticum

Sodium Carbonate (Na₂CO₃).

Nitrum Antimoniatum

Product containing potassium nitrate, nitrite, and antimonate.

Nitrum Commun

See common Nitre

Nitrum Cubic

See Cubic Nitre

Nitrum Fixatum (Nitrum Fixum, Fixed Nitre)

An often impure preparation of potassium carbonate (K₂CO₃).

Nitrum Flammans

Ammonium Nitrate (NH₄NO₃).

Nitrum Regeneratum

Potassium nitrate (KNO₃).

Nitrum Saturni

Lead Nitrate (Pb(NO₃)₂).

Nitrum Stibnatum

Probably antimony nitrate (2Sb₂O₃ · N₂O₅).

Nitrum Sulphure Purgatum

Mixture of potassium nitrate and potassium sulfate (KNO₃; K₂SO₄).

Nitrum Vitriolatum

Mixture of potassium nitrate and potassium bisulfate (K₂SO₄; KHSO₄).

Non Metals

A term used by William Cullen and his students for the following group of substances; zinc (Zn), antimony (Sb), bismuth (Bi), arsenic (As), platinum (Pt), cobalt (Co), nickel (Ni).

O

Ochre

A class of mineral solids which, in powdered form, were commonly used as pigments. Their colors varied from yellow to brown, including reddish hues. Chemically, the ochres are iron oxides, or mixtures of iron oxides, in varying states of hydration. For example red ochre is primarily Fe_2O_3 . Silicates, carbonates, sulfates, etc. also were commonly present with these oxides.

Ochroite

Cerium Oxide (CeO_2).

Offa Helmonth

Potassium Carbonate (K_2CO_3).

Oil

Any relatively insoluble, inflammable, somewhat viscous liquid.

Oil Gas

Mixture of methane, carbon monoxide, and butylene (CH_4 , CO , C_4H_8).

Oil of Arsenic

Arsenic trichloride (AsCl_3)

Oil of Chalk

Calcium chloride solution (CaCl_2).

Oil Cloves

An oily substance extracted from the buds and flower stalks of the clove tree *Caryophyllus aromaticus*. Used as medicinal

Oil of Dippel

The insoluble, viscous fraction from decomposed animal matter that has gone through repeated distillations.

Oil of Hartshorn

A crude animal oil obtained from the destructive distillation of bones

Oil of Lime

A solution of calcium chloride (CaCl_2).

Oil of Rue

The oil extracted from evergreens of the genus *Ruta*. Used as Medicinal

Oil Sulphur

Concentrated sulfuric acid. Sometimes the term was used for alkaline sulphide of ammonia ($\text{NH}_4)_2\text{S}$).

Oil of Tartar

Concentrated potassium carbonate solution (K_2CO_3).

Oil of Tartar per Deliquium

Potassium carbonate, which is hygroscopic, dissolved in the water which it extracts from the air.

Oil of Venus

Concentrated solution of copper nitrate ($\text{Cu}(\text{NO}_3)_2$).

Oil of Vitriol

Sulfuric Acid (H_2SO_4).

Oil of Wine

A hypothetical component of alcohol thought to give it its odor and inflammability

Olea Terebinthine terpentine

Olefiant Gas

Ehtylene (C_2H_2).

Oleum Dulce

See Oil of Whine

Oleum Suphuris per Campanum

Sufuric Acid (H_2SO_4) prepared by burning sufur 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($HOOCCH_2CH_2COOH$).

Oleum Tartar per Demiquium

See Oil of Tartar per Deliquium

Oleum Vitriol

Oil of Vitriol

Orpiment

arsenic trisulfide (As_2S_3).

Oxycarburetted Hydrogen

Water gas mixture or hydrogen (H_2), carbon monoxide, (CO), and carbon dioxide (CO_2).

Oxymuriatic Acid

Chlorine (Cl_2).

P

Panacea

Potassium sulfate (K_2SO_4).

Pan-Stone

Calcium sulfate ($CuSO_4$).

Parting

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

Pearl Ash

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

Pearl White

Bismuth oxychloride [$BiOCl$].

Pelican

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

Pellicle

Any thin saline crust that forms on a solution.

Per Campanum

Any process carried out under a solution.

Per Deliquium

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

Perlate Salt

Sodium phosphate (Na_3PO_4).

Perspiration

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

Perspirative

A medicinal which promoted perspiration.

Petrolia

Liquid bitumens.

Petunise

A white mineral solid used in the manufacture of porcelain.

Pewter

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

Philosopher's Wool

Zinc Oxide (ZnO).

Philosophical Flowers of Vitriol

Boric acid (H_3BO_3).

Philosophical Foliated Earth

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

Philosophical Mercury

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

Philosophical Sal Ammoniac

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

Philosophical Spirit of Nitre

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

Philosophical Spirit of Tartar

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

Philosophical Spirit of Vitriol

Hydrochloric acid (HCl).

Philosophical Spirit of Wine

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

Philosophical Water

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

Phlegm

A general term for any aqueous fraction of a distillation.

Phlogisticated Acid of Nitre

Nitrous acid (HNO_2).

Phlogisticated Acid of Vitriol

Sulphurous acid (H_2SO_3).

Phlogisticated Air

Nitrogen (N_2).

Phlogisticated Alkali

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

Phlogisticated Calx of Iron

Ferrous oxide (hydroxide) (FeO).

Phlogisticated Earth of Molybdaena

The solid reduction of molybdic acid.

Phlogisticated Manganese

Manganous carbonate (MnCO_3).

Phlogisticated Nitre

Impure potassium nitrite (KNO_2).

Phlogisticated Nitrous Acid

Nitrous acid (HNO_2).

Phlogisticated Vitriolic Acid

Sulfurous acid (H_2SO_3).

Phlogiston

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

Phlogiston Elasticum

Hydrogen (H_2).

Phosphorated Iron

Ferric phosphate (FePO_4).

Phosphorated Mercury

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

Phosphorated Vegetable Alkali

Potassium phosphate (K_3PO_4).

Phosphorous

Sometimes used for any phosphorescent substance.

Phosphorous of Baldwin

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

Phosphorous of Homberg

Calcium chloride (CaCl_2).

Phosphorous of Urine

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

Pierre Infernale Fused silver nitrate ($\text{Ag}(\text{NO}_3)$). [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 ($2\text{PbCO}_3 \cdot \text{Pb}(\text{OH})_2$). Sometimes the term was applied to basic lead acetate ($\text{Pb}(\text{C}_2\text{H}_3\text{O}_2) \cdot \text{Pb}(\text{OH})_2 \cdot \text{H}_2\text{O}$).

Plumbum Cinereum

Bismuth (Bi).

Plumbum Corneum (Horn Lead)

Lead chloride (PbCl_2).

Plumbum Stridens

Tin (Sn)

Pneumatic

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

Pneumatic Trough

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

Point of Saturation

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

Pomphlix

Flowers of zinc (ZnO).

Ponderous Spar

Barium Sulfate (BaSO_4).

Pot Ash

Potassium carbonate (K_2CO_3).

Powder of Algaroth

Antimony oxychloride (SbOCl)

Precipitant

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

Praecipitate Per Se

Mercuric Oxide (HgO).

Praecipitatus Albus

Mercurous chloride (Hg₂Cl₂).

Praecipitatus Vigonis

Mercuric Oxide (HgO).

Precipitate of Sulfur

Precipitated milk of sulfur (S).

Precipitation

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

Primus Metal

See Prince Rupert's Metal

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

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

Prince's Metal

See Prince Rupert's Metal

Principle

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

Proximate Principles

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

Prussian Blue

Ferric ferrocyanide (Fe₄[Fe(Cn)₆]₃).

Prussian Acid

Hydrocyanic acid (HCN).

Pulvis Algarothi

Antimonious oxychloride (SbOCl).

Pulvis Fulminans

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

Pumice

A light porous stone of mixed silicates.

Pure Clay

Alumina. Aluminum Oxide (Al₂O₃).

Pure Ponderous Earth

Baryta. Barium Oxide. (BaO)

Purification

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

Pyrites

Originally, any mineral which could strike sparks from steel. The term was often used to refer iron pyrites (FeS₂).

Pyroligneous Acid

Crude acetic acid from wood (HC₂H₃O₂).

Pyroligneous Spirit

Methyl alcohol (CH₃OH).

Q

Quadrangular Nitre

Sodium Nitrate (NaNO₃).

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 (SiO₂). Its color and other aspects of its appearance depended on the impurities present.

Quicklime

Calcium oxide (CaO).

Quicksilver

Mercury (Hg).

Quicksilver Calcined Per Se

Mercuric oxide (HgO).

Quintessence

A mixture of an essential oil and alcohol.

Quintessence of Lead

Acetone (CH₃COCH₃).

R

Rabel's Water

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

Ramous

(1) Individual (fundamental) particles of viscous or rigid bodies; (2) branching or

filament-like parts of a liquid mixture.

Realgar

Arsenic disulfide (As_2S_2).

Receiver

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

Recrement

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

Rectification

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

Red Arsenic (Realgar)

Native arsenic disulphide (As_2S_2).

Red Bole

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

Red Flowers of Antimony

Probably antimony sulfide (Sb_2S_5).

Red Ochre

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

Red Precipitate

See Red Precipitate of Mercury.

Red Precipitate of Mercury

Impure mercuric oxide (HgO).

Red Saunders (Red Sanders)

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

Reductoin

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

Refractory Earths

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

Refrigeratory

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

Regenerated Marine Salt

Potassium chloride (KCl).

Regenerated Sea Salt

Potassium chloride (KCl).

Regenerated Tartar

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

Reguline Caustic

Potassium carbonate (K_2CO_3).

Regulus

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

Retory

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

Revivification

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

Risigallum

See Rock Alum.

Rochelle Salt (Seignette Salt)

Potassium sodium tartrate ($KNaC_4H_4O_6 \cdot 4H_2O$).

Rock Alum

Usually larger crystals or formations of potassium aluminum sulfate ($KAl(SO_4)_2 \cdot 12H_2O$). Alum of this quality often was imported from Italy.

Rock-Crystal

Pure, colorless, transparent, crystalline quartz occurring naturally in large prismatic crystals. Silicon dioxide (SiO_2).

Rog

Concentrated native vegetable acid. From the usual preparations, it would be primarily citric acid ($C_6H_8O_7$).

Roman Vitriol

Copper sulfate ($CuSO_4$). In Britain this term was sometimes used for ferrous sulfate ($FeSO_4$).

Russian Pot Ash

Potassium carbonate (K_2CO_3).

Rust of Copper

See Verdigris.

S**Sacchared Lime**

Calcium oxalate (CaC_2O_4).

Saccharum Saturni

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

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 (Fe_2S_3).

Saffron of Metal

A mixture of antimony sulfide (Sb_2S_3), nitre (KNO_3), and antimony sulfate ($\text{Sb}_2(\text{SO}_4)_3$).

Sal Absinthi (Salt of Wormwood)

Mostly potassium carbonate (K_2CO_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 (K_2SO_4).

Sal Alkanus Vegetabilis

Potassium carbonate (K_2CO_3).

Sal Amarum

Magnesium sulfate (MgSO_4).

Sal Ammoniac (Sal Armoniac)

Ammonium chloride (NH_4Cl). Sometimes used for other ammonium salts.

Sal Ammoniacum Fixum

Calcium chloride (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 (MgSO_4).

Sal Catharticum

Magnesium sulfate (MgSO_4).

Sal Catharticum Amarum

Magnesium sulfate (MgSO_4).

Sal Catholicum

Potassium sulfate (K_2SO_4).

Sal de Duobus

Potassium sulfate (K_2SO_4).

Sal de Seignette (Sal de Soinette)

See Seignetteís Salt.

Sal Digestiv

Potassium chloride (KCl).

Sal di Modena

Magnesium sulfate (MgSO_4).

Sal Diureticus

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

Sal Duplicatum

Potassium sulphate (K_2SO_4).

Sal Enixum

Potassium sulfate (K_2SO_4).

Sal Epsom (Epsom Salt)

Magnesium sulfate (MgSO_4).

Sales Medii

See Sal Medium.

Sales Salsi

See Sal Salsam.

Sal gemme (Sal Gem)

Sodium chloride (NaCl).

Sal Gentianae

Mostly potassium carbonate (K_2CO_3).

Sal Glauber (Glauber's salt)

Sodium sulfate (Na_2SO_4).

Sal Guaiaci ex Ligno

Mostly potassium carbonate (K_2CO_3).

Saline Bodies (Cullen)

Substances which are (a) sapid, (b) miscible with water, and (c) noninflammable. Salited Earths, Metals, etc. Chlorides (Cl^-).

Sal Juniperi

Mostly potassium carbonate (K_2CO_3).

Sal Kali (Sodium Carbonate)

Soda (Na_2CO_3).

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_4).

Sal Medium (Sal Salsum) (Sales Medii)

Any neutral salt that would not precipitate solutions made with acid or alkaline salts and would not change the color of syrup of violets.

Salmiac

See Salt Ammoniac.

Sal Mirabile (Glauber's salt)

Sodium sulphate (Na_2SO_4).

Sal Nitriforme Inflammable

Probably ammonium nitrate ($(\text{NH}_4)\text{NO}_3$).

Sal Nitrii

Potassium nitrate (KNO_3).

Sal Perlatum

Sodium phosphate (Na_2PO_4).

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 ($\text{NaKC}_4\text{H}_4\text{O}_6$).

Sal Polychrestrum e Nitro et Sulphure

Potassium sulfate (K_2SO_4).

Sal Polychrestrum Glaseri

Potassium sulfate (K_2SO_4).

Sal Prunellae

A mixture of potassium nitrate and potassium sulfate (KNO_3 ; K_2SO_4).

Sal Rupellensis (Rochelle Salt)

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

Sal Salsam

Any neutral combination of an acid with alkali. (see also Neutral Salts, Sal Medium, or Salts.)

Sal Sapientiae

Potassium sulfate (K_2SO_4).

Sal Saturni

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

Sal Sedivatus (Sedative Salt)

Boric acid, (H_3BO_3).

Sal Sennerti

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

Sal Soda (Salt Soda, Soda)

Sodium carbonate (Na_2CO_3).

Sal Succini (Salt of Amber)

Succinic acid ($\text{HO}_2\text{CCH}_2\text{CH}_2\text{CO}_2\text{H}$).

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 ($\text{C}_4\text{H}_6\text{O}_4$).

Salt of Art

See Salt Alembroth.

Salt of Benzoin

Benzoic acid ($\text{C}_6\text{H}_5\text{COOH}$).

Salt of Centaury

Solid residues obtained from the calcination of any of the plant species of the genus *Centaurea*.

Salt of Chalk

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

Salt of Colcothar

Probably impure ferric hydroxide ($\text{Fe}(\text{OH})_3$).

Salt of Coral

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

Salt of Crab's Eye

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

Salt of England

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

Salt of Epsom

See Epsom Salt.

Salt of Gall-Nuts

Tannic acid ($\text{C}_76\text{H}_52\text{O}_46$).

Salt of Glass

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

Salt of Hartshorn

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

Salt of Human Blood

A mixture of ammonium salts, including ammonium hydroxide (NH_4OH), and various

organic solids.

Salt of Lead (Sugar of Lead) (Sal Saturn)

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

Salt of Lime

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

Salt of Mars

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

Salt of Milk

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

Salt of Oxbone

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

Salt of Science

See Salt Alembroth.

Salt of Sedlitz

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

Salt of Soda

See Soda.

Salt of Sorrel

Acid potassium oxylate (KHC_2O_4).

Salt of Steel

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

Salt of Sulphur

Impure potassium sulfate (K_2SO_4).

Salt of Sylvius (Febrifugal Salt of Sylvius)

Potassium chloride (KCl).

Salt of Tachenius

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

Salt of Tartar

Potassium carbonate (K_2CO_3).

Salt of Urine

Impure ammonium salts extracted from urine.

Salt of Vinegar

Impure potassium sulfate. Probably mixed with acetates and citrates.

Salt of Wisdom

See Salt Alembroth.

Salt of Wormwood

Mostly potassium carbonate (K_2CO_3).

Sal Vitrioli

Ferrous sulfate (FeSO_4).

Sal Volatile Fixatum

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

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 Ga II)

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.

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) (CN).

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 ((NH₄)₂SO₄).

Sedative Salt

Usually boric acid, but sometimes sodium tetraborate (Na₂B₄O₇).

Sedative Spar

Calcium borate (CaB₄O₇).

Sedlitz Salt (Epsom Salt)

Magnesium Sulphate (MgSO₄).

Seignette's Salt

Sodium potassium tartrate (Rochelle's salt) (NaKC₄H₄O₆).

Selenite

The various mineral forms of Calcium sulphate (CaSO₄).

Selenitic Spar

Any mineral assigned to the family of "spars" that could be calcined like gypsum (CaSO₄ · 2H₂O).

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 separatory funnel and often used for similar purposes.

Serpentine

A steatite, usually green.

Shoot

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

Siderum

Iron phosphide (Fe_3P).

Silex

Silicon dioxide (SiO_2).

Silicious Earth (Silcia)

Silicon dioxide (SiO_2).

Similor

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

Slaked Lime

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

Smalt

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

Smelting

The process of extracting a metal from its ore.

Smo(a)king Spirit of Libavus

Primarily stannous chloride (SnCl_2) but with chlorides of mercury mixed in.

Smo(a)king Spirit of Nitre

Concentrated nitric acid (HNO_3).

Snow of Antimony

See Flowers of Antimony.

Soap

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

Soap of Glass

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

Soap-Rock

See Steatites.

Soapstone

See Steatite

Soda

Sodium carbonate (Na_2CO_3)

Soda Baryllia (Spanish)

Sodium carbonate (Na_2CO_3)

Soda Hispanica (Washing Soda)

Sodium carbonate (Na_2CO_3)

Solder

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

Soluble Tartar

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

Solution

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

Solvend (Cullen)

Solute

Soot

Carbon and hydrocarbon deposits from incomplete combustion of fuels.

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

Spanish Earth

Vitriols (mixture) (CuSO_4 ; FeSO_4).

Spanish Green

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

Spanish White

Bismuth oxychloride (or oxynitrate) (BiOCl ; BiONO_3)

Spar

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

Spath (Spat) Stone

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

Spathic Iron Ore

Ferrous carbonate (FeCO_3)

Specificum Purgans Paracelsi

Potassium sulfate (K_2SO_4)

Spermaceti

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

Sphacelated

Gangerenous

Spikenard

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

Spirit

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

Sp. Ammon. Cum Calce Viva

Ammonium carbonate ((NH₄)₂CO₃).

Spirit Ammon. Sal. Vol.

Mostly ammonium carbonate ((NH₄)₂CO₃).

Spirit of Alum

Sulfuric acid (H₂SO₄) obtained from the destructive distillation of alum (KAl(SO₄)₂ · 12H₂O).

Spirit of Hartshorn

Strong solution of ammonia produced by the distillation of hartshorn (NH₄O₄).

Spirit of Libavius

Stannic chloride (SnCl₄).

Spirit of Mindererus

Ammonium acetate solution (NH₄(C₂H₃O₂)).

Spirit of Wine

Ethanol (ethyl alcohol) (C₂H₅OH).

Spiritus Aceti

The acetic acid (HC₂H₃O₂) obtained from distilling any fermented material which produces this acid, e.g., vinegar.

Spiritus Beguini

Ammonium polysulfide (fuming liquor of Boyle) ((NH₄)₂S₂).

Spiritus CC

Ammonium carbonate ((NH₄)₂CO₃).

Spiritus Nitri Coagulatus

Potassium nitrate (KNO₃).

Spiritus Nitri Dulcis (Sweet spirit of Nitre)

Ethyl nitrite (C₂H₅NO₂).

Spiritus Sal Ammoniacum

See Spirit of Sal Amomoniac.

Spiritus Salis Ammoniaci Cum Sale Alkali Parata

Ammonium carbonate ((NH₄)₂CO₃).

Spiritus Salis Coagulatus

Potassium chloride (KCl).

Spiritus Sulphuris

See Spirit of Vitriol or Spirit of Sulphur

Spiritus Sulphuris Volatilus Beguinii

Ammonium polysulphide ((NH₄)₂S₂).

Spirit Veneris

Sulphuric acid (H₂SO₄).

Spiritus Vitrioli

See Spirit of Vitriol.

Spiritus Vitrioli Coagulatus

Potassium sulfate (K₂SO₄).

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 (CH₄).

Stamping

Crushing of ores.

Stannum Anglici

Tin (Sn) from England.

Stannum Glaciale

Bismuth (Bi)

Starkey's Soap

Saponaceous substance from the reaction between potassium carbonate and essential oil of turpentine.

Steatite

A mineral substance composed mostly of various forms of magnesium silicate, e.g., (Mg₃Si₄O₁₁H₂O).

Steel

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

Stibiater Tarter

Potassium antimonyl tartrate (KSbC₄H₄O₇).

Stibium

Antimony sulfide (Sb₂S₃).

Stick Laque

See Lac.

Stinking Sulphureous Air

Hydrogen sulphide (H₂S).

Stone of bologna

A variety of barium sulfate (BaSO₄) 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 (HNO₃).

Spirit of Ammoniac

Ammonia (NH₃), or ammonium hydroxide solution (NH₄OH).

Spirit of Salt

Hydrochloric acid (HCl).

Spirit of Saturn

Impure acetone made from lead acetate (CH₃COCH₃).

Spirit of Sea-Salt

Hydrochloric acid (HCl).

Spirit of Sulfer

Mixture of sulfuric and sulfurous acids (H₂SO₄; H₂SO₃).

Spirit of Tatar

Potassium hydrogen tartrate (KHC₄H₄O₆). Product of the dry distillation of crude tartar.

Spirit of Urine

Ammonium carbonate ((NH₄)₂CO₃). Derived from an impure solution of ammonia obtained by the distillation of urine.

Spirit of Venus

Concentrated and relatively pure acetic acid (HC₂H₃O₂).

Spirit of Verdigris

Acetic acid (HC₂H₃O₂).

Spirit of Vinegar

Impure acetic acid obtained by distilling vinegar (HC₂H₃O₂).

Spirit of Vitriol

Dilute sulfuric acid (H₂SO₄) and/ or sulfurous acid (H₂SO₃).

Strontia

Strontium oxide (SrO).

Sublimate

Solid or concrete products of sublimation. Not powder.

Sublimation

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

Subsatnia Ferrea Vitrioli

Ferric oxide (Fe₂O₃).

Succinum

Amber.

Sudorific

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

Sugar of (A Substance)

Usually signifying an acetate (C₂H₃O₂).

Sugar of Lead

Lead acetate (Pb(C₂H₃O₂)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 doctriined of phlogiston, a compound composed of vitriolic (sulfuric) acid and the inflammable principle, "phlogiston."

Sulphur Album Fixum

Potassium nitrate (KNO₃).

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 (Sb₂S₃) with some of the pentasulfide (Sb₂S₅).

Sulphureous Salt of Stahl

Impure potassium sulfite (K₂SO₃).

Sulphureous Acid

Sulfurous acid (H₂SO₄).

Sulphurets

Sulfides (S).

Sulphureum (Bergman)

Sulfurous acid (H₂SO₃).

Sulphurous Acid (Pre-Lavoisier)

Sulfuric acid (H₂SO₄).

Sulphur Vivum

Naturally occurring sulphur (S).

Superolefiant Gas (Dalton)

Butylene (C₄H₈).

Swedish Acid

Hydrofluoric acid (HF).

Sweetened Spirit of Salt

Ethyl chloride (C₂H₅Cl).

Sweet Mercury (Mercurous Dulis)

Mercurous chloride (Hg₂Cl₂).

Sweet Principle from oils and fats

Glycerol (HOCH₂CHOHCH₂OH).

Sweet Sublimate

Mercurous chloride (Hg₂Cl₂).

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 ($Mg_3Si_4O_{11}H_2O$).

Talky Earths

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

Tannin

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

Tar

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

Tartar

Potassium hydrogen tartrate ($K_4HC_4H_4O_6$).

Tartarated Alkali of Tartar

Potassium tartrate ($K_2C_4H_4O_6$).

Tarter Emetic (Stibiated Tartar)

Potassium antimonyl tartrate ($KSbC_4H_4O_7$).

Tartarified Iron

see Chalybs Tartar.

Tartarified Tincture of Iron

Ferrous tartrate solution ($FeC_4H_4O_6$).

Tartarin

A term occasionally used for potassium carbonate (K_2CO_3).

Tartarized Tartar

Potassium tartrate ($K_2C_4H_4O_6$).

Tartarized Tincture of Mars

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

Tartarum Regeneratum (Regenerated Tartar)

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

Tartarum Solubus (Soluble Salt of Tartar)

Potassium tartrate ($K_2C_4H_4O_6$).

Tartarum Tartisatum

Potassium tartrate ($K_2C_4H_4O_6$).

Tartarum Vitriolatum (Vitriolated Tartar)

Potassium sulfate (K_2SO_4).

Tartarus Citratus

Potassium citrate ($K_3C_6H_5O_7 \cdot H_2O$).

Tartarus Nitratu

Potassium nitrate (KNO_3).

Tartarus Tartarisatus

Potassium tartrate ($K_2C_4H_4O_6$).

Tartarus Vitriolatus

Potassium sulfate (K_2SO_4).

Tartre Stybie (Tartar Emetic)

Potassium antimonyl tartrate ($KSbC_4H_4O_7$).

Tar Water

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

Tectum Argenti

Bismuth (Bi).

Terebinth

The resin from the terebinth tree *Pistacia terebinthus*.

Terebinthaceous

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

Terebinthine

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

Terra Anglica Rubra

Ferric oxide (Fe_2O_3).

Terra Foliata Nitri

Potassium acetate ($KC_2H_3O_2$).

Terra Foliata Tartari

See Regenerated Tartar.

Terra Foliata Tartari Crystallisabilis

Sodium acetate ($NaC_2H_3O_2$).

Terra Foliata Secretissima

Solid potassium acetate ($KC_2H_3O_2$)₂.

Terra Francisca

Assorted sulfates (e.g., $FeSO_4$, $CuSO_4$)

Terra Molybdaenea

Molybdic acid ($H_2MoO_4 \cdot H_2O$).

Terra Ponderosa

Barium sulfate (BaSO_4).

Terra Ponderosa Acetate

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

Terra Ponderosa Aerata

Barium carbonate (BaCO_3).

Terra Ponderosa Molybdaenata

Barium molybdate (BaMoO_4).

Terra Foliee Animale

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

Terra Foliee Crystallisee

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

Test

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

Testaceous Earths

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

Testing

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

Theriac

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

Tincal (Tinkal)

Crude borax imported from India.

Tinct. Tartari

Solution of potassium hydroxide (KOH) in alcohol.

Tinctura Antimonii

See Tincture of Antimony.

Tincture

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

Tincture of Antimony

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

Tincture of Coral

Crude acetone (CH_3COCH_3).

Tincture of Mars

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

Tincture of Mars of Mysight

An alcohol solution in which the solute is primarily ferric chloride (FeCl_3).

Tin-Glass

Bismuth (Bi).

Tinging

When one substance tinges or slightly colors another.

Torrefaction

Roasting of ores in the hope of removing impurities.

Tourmaline (Tourmalin, Ash-Stone)

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

Tournole

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

Tutenag (Chinese Copper)

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

Tutia

See Tutty.

Tutty

Zinc oxide (ZnO).

U

Uliginous

Any water, oozing matter like that in a swamp.

Ulmin

A mucilagenous substance from the inner bark of the elm.

Ultramarine

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

Umber

A mineral solid which exists in a range of brown hues. Chemically, umber is mostly a mixture of hydrous ferric oxide ($\text{Fe}_2\text{O}_3 \cdot x\text{H}_2\text{O}$) and manganese dioxide (MnO_2). It was believed by many in the eighteenth century to be a fossil wood originally found in Umbria near Spoleto in Italy.

Unctuous

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

Unctuous Oils

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

Urinou Salts

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

Ustulation

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

V

Vague Acid of Mines

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

Vapour

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

Vapour of Arsenic

Arsenious oxide (As_2O_3)

Varnish

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

Vegetable Acid

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

Vegetable Acid, Fermentative

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

Vegetative Acid, Native

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

Vegetable Alkali (Potash)

Potassium carbonate (K_2CO_3).

Vegetable Ammoniacal Salt

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

Vegetable Salt

See Tartarified Tartar or Soluble Tartar.

Venus (of Venus)

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

Verdigris (Verdigrise)

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

Verditer (Blue Verditer; Blue Bice)

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

Vermillion

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

Vine Black

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

Vinegar of Lead

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

Vital Air

Oxygen (O_2)

Vitiated Air

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

Vitresant (Vitrifiable)

Any solid that could be made into "glass".

Vitrifiable Earths (Vitreous Earths)

Mineral substances which fuse under the action of fire.

Vitrification

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

Vitriol

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

Vitriol, Blue

Copper sulfate (CuSO_4)

Vitriol, Green

Ferrous (or iron) sulfate (FeSO_4)

Vitriol, White

Zinc sulfate (ZnSO_4)

Vitriol (or Vitriolic)
Acid Sulphuric acid (H_2SO_4)

Vitriolated Earths, Metals, etc.

Sulphates.

Vitriolated Ether

Diethyl ether ($\text{C}_4\text{H}_{10}\text{O}$).

Vitriolated Tartar

Potassium sulfate (K_2SO_4)

Vitriolic Ether

Diethyl ether ($\text{C}_4\text{H}_{10}\text{O}$).

Vitriol of Goslar (White Vitriol)

Zinc sulfate (ZnSO_4)

Vitriol of Jove

Stannous sulfate (SnSO_4)

Vitriol of Jupiter

Stannous acetate ($\text{Sn}(\text{C}_2\text{H}_3\text{O}_2)_2$)

Vitriol of Mars (Green Vitriol)

Ferrous sulfate (FeSO_4)

Vitriol of Quick Silver

Mercuric nitrate ($\text{Hg}(\text{NO}_3)_2$)

Vitriol of Saturn

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

Vitriol of Silver

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

Vitriol of Venus

Cupric sulfate (CuSO_4)

Vitriolum Album

See White Vitriol.

Vitriolum Ammonium

Ammonium sulfate ($(\text{NH}_4)_2\text{SO}_4$)

Vitriolum Anglicum

Ferrous sulfate (FeSO_4)

Vitriolum Veneris cum Alkali Fixo Praecipitatum

Basic copper acetate ($\text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2 \cdot \text{CuO} \cdot 6 \text{H}_2\text{O}$)

Vitrium Antimonii (Glass of Antimony)

Fused antimony oxide (Sb_2O_3)

Vivifying Spirit

A hypothetical principle in the air which, according to some early eighteenth century chemists, was the active agent in combustion and respiration.

Volatile

An adjective usually used to indicate not only that a substance naturally gave off some aeriform component (as indicated by an odor) but also that it decomposed easily and gave off one or more aeriform components to the air on heating.

Volatile Acid of Nitre

Nitrous acid (HNO_2)

Volatile Acid of Sulfur (Phlogisticated Vitriolic Acid)

Sulfurous acid (H_2SO_3)

Volatile Alkali

A term most commonly used for solutions of ammonia; e.g., ammonium hydroxide.

Volatile Alkali in its Concrete Form

Ammonium carbonate (NH_4CO_3)

Volatile Liver of Sulfur

Volatile product from heating sulfur with quicklime and ammonium chloride.

Volatile Sal Ammoniac

Ammonium hydroxide solution.

Volatile Salt

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

Volatile Salt of Amber

See Salt of Amber

Volatile Salt of Hartshorn

Ammonium carbonate (NH_4CO_3)

Volatile Spirit of Sal Ammoniac

Ammonium hydroxide (NH_4OH) obtained from quicklime (calcium oxide) and sal ammoniac (ammonium chloride).

Volatile Spirit of Sulfur

The aeriform product from burning sulfur; mostly sulfur dioxide

Volatile Vitriol of Venus

Copper acetate $\text{Cu}(\text{C}_2\text{H}_3\text{O}_2)_2$

W**Wash**

Any fermented mixture which, after distillation, would produce distilled spirits (ethanol $\text{CH}_3\text{CH}_2\text{OH}$, with impurities).

Water gas

Mixture of hydrogen (H_2) and carbon monoxide (CO)

Water of Minderus

A solution of ammonium acetate ($\text{NH}_4\text{C}_2\text{H}_3\text{O}_2$).

Water of Rabel

A solution of ethyl ether ($\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3$) in ethanol ($\text{CH}_3\text{CH}_2\text{OH}$)

Wax

A term referring to beeswax only, as the hydrocarbon waxes were not available in the eighteenth century.

Whey

The liquid which remains after milk is curdled, usually in the process of cheese-making.

White Arsenic

Arsenious oxide (As_2O_3)

White Calx of Antimony

Mixture of antimony oxide (Sb_2O_3) and potassium oxide (K_2O).

White Copper

An alloy of arsenic (As), copper (Cu), and zinc (Zn).

White Copperas

Zinc sulphate (ZnSO_4)

White Lead

Basic lead carbonate ($\text{Pb}(\text{CO}_3)_2 \cdot \text{Pb}(\text{OH})_2$)

White Manganese

Manganous carbonate (MnCO_3)

White Precipitated Mercury (Precipitate of Sublimate of Mercury)

Mercurammonium chloride (HgNH_2Cl)

White Vitriol

Zinc sulphate (ZnSO_4)

Wind Furnace

A reverberating furnace.

Wine

Often used more broadly by eighteenth-century chemists to include any potable liquid

which had

become "spiritous" through fermentation; e.g., beer, cider, and mead.

Witherite

Barium carbonate (BaCO_3).

Woad

A blue dye prepared from the leaves of the plant *Isatis tinctoria*.

Wolfram

A mineral substance *Spumi lupi* that was under investigation in the 18th century.

Wood Ash

Potassium carbonate (K_2CO_3)

Worm

A long, coiled tube, usually of copper, attached to the head of a distillation apparatus for the purpose of increasing condensation. A worm commonly was used in distilling spirits.

Wormwood

The plant *Artemisia absinthium*, the leaves of which were used to make an extract by distillation. Used as a medicinal.

Wort

An infusion of grain, usually malt, which was fermented to produce beer.

Woulfe Bottle

A bottle with two or more necked orifices that was used in distillation.

Y

Yellow

A yellow coloring agent produced by treating indigo with dilute nitric acid. This substance proved to be unstable and seldom was used as dye.

Yellow Aqua Fortis

Concentrated nitric acid (HNO_3).

Yellow Arsenic

Arsenious sulphide (As_2S_3).

Yellow Ochre

Hydrated ferric oxide ($\text{Fe}_2\text{O}_3 \cdot \text{H}_2\text{O}$).

Yttria

A mixture of rare earth elements from the mineral gadolinite. Primarily the trioxide of yttrium (Y_2O_3).

Z

Zaffre (Saffre)

A gray or reddish powder composed mostly of cobalt oxide (CoO).

Zeolites

A group of mineral solids which are various hydrated silicates, primarily of aluminum, calcium, potassium, and sodium. Although not really related, they share the property of swelling and "boiling" under the heat of the blowpipe.

Zinc (Zinco, Zinetum)

Regarded in the eighteenth century as a semi-metal because of its relative brittleness.