

# Alchemical Substances

## A

**Aes cyprium.** Cyprian brass or copper.

**Acetate** A crystalline (or liquid) oily substance extracted from metals by means of acetic acid menstrum.

**Aqua tofani.** Arsenious oxide. Extremely poisonous. Used by Paracelsus.

**Antimony.** From latin 'antimonium' used by Constantinius Africanus (c. 1050) to refer to Stibnite.

**Archaeus** The secret inner matter of a substance.

## B

**Black Lion** The caput mortum or black salt which cannot be purified.

**Blue vitriol or bluestone.** Cupric sulphate.

**Brimstone** (from German Brennstein 'burning stone'). Sulphur.

**Butter of Antimony.** White crystalline antimony trichloride. Made by Basil Valentine by distilling roasted stibnite with corrosive sublimate. Glauber later prepared it by dissolving stibnite in hot concentrated hydrochloric acid and distilling.

**Butter of tin.** Hydrated stannic chloride.

## C

**Cadmia**, which was also called Tuttia or Tutty, was probably zinc carbonate.

**Calamine.** Zinc carbonate.

**Calomel.** Mercurous chloride. Purgative, made by subliming a mixture of mercuric chloride and metallic mercury, triturated in a mortar. This was heated in a iron pot and the crust of calomel formed on the lid was ground to powder and boiled with water to remove the very poisonous mercuric chloride.

**Caustic marine alkali.** Caustic soda. Sodium hydroxide. Made by adding lime to natron.

**Caustic Soda** Sodium Hydroxide

**Caustic volatile alkali.** Ammonium hydroxide.

**Caustic wood alkali.** Caustic potash. Potassium hydroxide. Made by adding lime to potash.

**Chalk.** Calcium carbonate.

**Chrome green.** Chromic oxide.

**Chrome orange.** Mixture of chrome yellow and chrome red.

**Chrome red.** Basic lead chromate.

**Chrome yellow.** Lead chromate.

**Cinnabar or Vermillion.** Mercuric sulphide.

**Cinnabar.** Mercuric sulphide.

**Cobalt.** Named by the copper miners of the Hartz Mountains after the evil spirits the 'kobolds' which produced false copper ore.

**Common salt.** Sodium chloride.

**Copper glance.** Cuprous sulphide ore.

**Corrosive sublimate.** Mercuric chloride. first mentioned by the Arabian alchemist Geber, who prepared it by subliming mercury, calcined green vitriol, nitre and common salt.

**Cuprite.** Red cuprous oxide ore.

## D

**Dragon** The philosophic Mercury-acid obtained from metals. Winged when volatile (pure) and without wings when crude or 'fixed'.

**Dutch White.** Mixture of one part of white lead to three of barium sulphate.

## E

**Eagle** When referring to a substance it is Philosophic Mercury. (Also sublimation.)

## F

**Fire Stone** A transmuting Stone made from Antimony.

**Flores** Oxide of a metal

**Flowers of sulphur.** light yellow crystalline powder, made by distilling sulphur.

**Fulminating gold.** Made by adding ammonia to the auric hydroxide formed by precipitation by potash from metallic gold dissolved in aqua regis. Highly explosive when dry.

**Fulminating silver.** Silver nitride, very explosive when dry. Made by dissolving silver oxide in ammonia.

## G

**Galena.** Plumbic sulphide. Chief ore of lead.

**Glass of Antimony.** Impure antimony tetroxide, obtained by roasting stibnite. Used as a yellow pigment for glass and porcelain.

**Glauber's Salt.** Sodium sulphate.

**Green Lion** The green acetate of Lead in liquid or crystal form.

**Green Dragon** It is said that technically there isn't one. But it could be said to be a acetate of lead (which not always but occasionally forms from a green oil).

**Green Vitriol.** Ferrous sulphate.

**Gypsum.** Calcium sulphate.

## H

**Horn silver, argentum cornu.** A glass like ore of silver chloride.

## I

## J

## K

**Kermes** Properly the oil of Antimony in a crude state, precipitated out of an alkaline menstrum by neutralization through an acid. It is usually red-brown. The term might be used for any metallic oil precipitated out of a lye (alkaline solution) by neutralization.

**Kerckringius menstrum (KM)** A menstrum for extracting metallic oils made from ethyl alcohol which has been distilled off of oil of thrice sublimated Hartshorn (NH<sub>4</sub>CL).

**King's Yellow**. A mixture of orpiment with white arsenic.

## L

**Lead fume**. Lead oxide obtained from the flues at lead smelters.

**Limatura Martis** Iron filings

**Lion** Any salt or fixed substance obtained from metals. The lion is said to be red, green or black according to the state of the fixed substance.

**Litharge**. Reddish-yellow crystalline form of lead monoxide, formed by fusing and powdering massicot.

**Liver of sulphur**. Complex of polysulphides of potassium, made by fusing potash and sulphur.

**Lunar caustic, lapis infernalis**. Silver nitrate.

**Luna cornea**. The soft colourless tough mass of silver chloride, made by heating horn silver till it forms a dark yellow liquid and then cooling. Described by Oswald Croll in 1608.

**Lye** An Alkaline menstrum. Usually a saturated solution of caustic soda.

## M

**Marcasite**. Mineral form of Iron disulphide. Oxidises in moist air to green vitriol.

**Massicot**. Yellow powder form of lead monoxide.

**Mercurius praecipitatus**. Red mercuric oxide. Described by Geber. (Fr. Albertus says solid Mercury, amalgam)

**Milk of sulphur** (lac sulphuris). White colloidal sulphur. Geber made this by adding an acid to thion hudor.

**Minium or Red Lead**. Triplumbic tetroxide. Formed by roasting litharge in air. Scarlet crystalline powder.

**Mosaic gold**. Golden-yellow glistening scales of crystalline stannic sulphide, made by heating a mixture of tin filings, sulphur and salammoniac.

## N

**Naples yellow, or Cassel yellow**. An oxychloride of lead, made by heating litharge with sal ammoniac.

**Natron**. Native sodium carbonate.

**Nickel**. Named by the copper miners of Westphalia the 'kupfer-nickel' or false copper.

**Nitrum flammans**. Ammonium nitrate made by Glauber.

## O

**Oil of Vitriol**. Sulphuric acid made by distilling green vitriol.

**Orpiment**. Auri-pigmentum. Yellow ore of arsenic. Arsenic trisulphide.

## P

**Pearl white**. Basic nitrate of bismuth, used by Lemery as a cosmetic.

**Philosophers' Wool**, or nix alba (white snow). Zinc oxide made by burning zinc in the air. Called Zinc White and used as a pigment.

**Potash** Potassium Carbonate. (The salts of vegetables, particularly grape vine)

**Powder of Algaroth**. A white powder of antimonious oxychloride, made by precipitation when a solution of butter of antimony in spirit of salt is poured into water.

**Purple of Cassius**. Made by Andreas Cassius in 1685 by precipitating a mixture of gold, stannous and stannic chlorides, with alkali. Used for colouring glass.

**Pyrites**. Mineral form of iron disulphide. Stable in air.

## Q

**Quicklime**. Calcium oxide.

## R

**Realgar**. red ore of arsenic. Arsenic disulphide.

**Red Dragon** In our Order it is the pure red oil of lead.

**Red Lion** In our system it is the red acetate of lead in crystal form.

**Resin of copper**. Cuprous chloride. Made by Robert Boyle in 1664 by heating copper with corrosive sublimate.

**Rouge, Crocus, Colcothar**. Red varieties of ferric oxide are formed by burning green vitriol in the air.

## S

**Sal Ammoniac**. Ammonium Chloride. Described by Geber.

**Sal volatile, Spirit of Hartshorn**. Volatile alkali. Ammonium carbonate made from distilling bones, horns, etc.

**Slaked lime**. Calcium hydroxide.

**Soda ash**. Sodium carbonate formed by burning plants growing on the sea shore.

**Spiritus fumans**. Stannic chloride, discovered by Libavius in 1605, through distilling tin with corrosive sublimate.

**Stibnite.** Antimony trisulphide. Grey mineral ore of antimony.

**Sugar of Lead.** Lead acetate, Made by dissolving lead oxide in vinegar.

**T**

**Thion hudor** (Zosimus refers to this as the 'divine water' or 'the bile of the serpent'). A deep reddish-yellow liquid made by boiling flowers of sulphur with slaked lime.

**Tin salt.** Hydrated stannous chloride.

**Turpeth mineral.** A hydrolysed form of mercuric sulphate. Yellow crystalline powder, described by Basil Valentine.

**Tutia** Zinc Carbonate or Oxide

**U**

**V**

**Venetian White.** Mixture of equal parts of white lead and barium sulphate.

**Verdigris.** Cupric (copper) carbonate.

**Vinegar** Could refer to either acetic acid, acid distilled or fermented out of metals or minerals.

**Viride Aeris** Green of Copper (CopperChlate)

**W**

**White arsenic.** Arsenious oxide. Produced from arsenical soot from the roasting ovens, purified by sublimation.

**White lead.** Basic carbonate of lead. Used as a pigment.

**White vitriol.** Zinc Sulphate. Described by Basil Valentine. Made by lixiviating roasted zinc blend (zinc sulphide).

**Winged Lion** Sublimated salt for the PS.

**Wood-ash or potash.** Potassium carbonate made from the ashes of burnt wood.

**Wismuth.** Bismuth.

**X**

**Y**

**Z**

**Zaffre.** Impure cobalt arsenate, left after roasting cobalt ore.

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## Alchemical Equipment and Processes

**A**

**Abstraction** See sublimation or distillation.

**Alembic** A type of retort. According to M.Junis a type of gas expansion chamber which is attached in a distillation train or circulation between the boiling flask and the condenser. The 'head' which fits on a retort.

**Athamor** A furnace for heating flasks, etc.

## B

**Balneum Marie** A Water bath.

## C

**Calcination** To burn (heat) a solid with much heat. Usually performed to purify the solid.

**Circulation** To circulate a liquid over a solid in a sealed flask. See rotation.

**Coagulate** To thicken. Usually done by removing the liquid portion of a substance.

**Cohobation** Binding, mixing or joining together.

**Condenser, water cooled** A tube-like piece of glassware which has a double jacket one of which has water flowing through it. It is used to condense vapours into liquids.

**Crucible** A fire proof cup shaped item in which a substance may be heated extremely.

## D

**Desiccate** To dry.

**Digestion** To macerate a substance in a solvent at a low temperature (usually 40°C)

**Distillation** To heat a substance in a flask (attached to a condenser) or retort so that its most volatile (pure) parts might be separated. The substance distilled is usually a liquid, but at times it might be a semi-solid substance (see sublimation).

**Distillation train** A heat proof flask attached to a water cooled condenser attached to a receiving flask. Used to distil liquids and solids. Modern type (see retort)

**Dulcify** To sweeten.

## E

**Eagle** To sublimate or distil. (Also P.Mercury.)

## F

**Fix, to** to make solid or stable.

**Flask** A glass container in which substances are stored or heated.

**Fuse** To melt.

## G

## H

**Head, a/the** The top and spout/condenser of a retort/flask .

**Hermetically sealed** Sealed air tight.

## I

**Imbibe** To add, slowly, a liquid to a solid so that the solid (salt) absorbs the liquid.

## J

## K

## L

**Lembic** See alembic

**Leach** (to leach) is to separate out pure salts from their mixture with impure salts by dissolving the whole in water. The pure salts can then be extracted by filtration and collected by evaporation.

## M

**Maceration** To soak a substance in a liquid. The liquid is usually a solvent, in order to extract (separate) its components.

## N

## O

## P

**Pelicanization** Circulation or rotation of a liquid over a solid. In classic times this was performed in a flask called a Pelican.

**Precipitation** To cause to be deposited at the bottom of a solution. Solids precipitate out of a liquid if they have not dissolved in that liquid.

**Putrefaction** To allow to rot. Also types of calcination, maceration and fermentation are considered to be putrefaction's. (See Golden Chain for detailed description)

## Q

## R

**Receiver, flask** The flask which is attached to the outlet of a condenser (or retort) that catches the distillate. (Also double-necked receiver.)

**Retort** A type of distillation device. A older type (without a water cooled condenser)

**Reverbatory furnace** a furnace heat to such an extent its roars with a load sound.

**Wind furnace** A furnace whose fire is aided by bellows or a wind funnel.

## S

**Solve** To dissolve.

**Soxhlet extractor** A specialised piece of laboratory glassware used to extract tinctures (primarily) from substances. The benefit of this equipment is that it is quick (as opposed to a standard maceration, and does not need to be watched.

**Sublimation** Purification of a substance by distillation. Usually used to describe a dry distillation (distillation or vaporisation of a dry substance).

## T

**U**

**V**

**Volatize** To make volatile. See distillation/sublimation

**Vitrify** To turn to glass.

**Vacuum, create a** To draw the air out of a closed distillation system in order to decrease the temperature, and the time, it will take to distil a substance.

**W**

**X**

**Y**

**Z**