# Alchemist symbols in Unicode

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The alchemist-style makes accessible alchemistic and astrological symbols in Unicode. It uses the Gnu Unifont https://unifoundry.com/unifont/, which has all required symbols. Unfortunately, the font is split into an upper and lower part. The Symbola-font (ht-tps://fontlibrary.org/de/font/symbola) and Quivira (https://www.fontspace.com/quivira-font-f13271) may also be suitable, but are incomplete. If you want to use them, set AlchemistA and AlchemistB to the same font. Quivira has a more handwritten look that may fit very well to the ancient character of the symbols.

### 1 Concepts

The symbols used by alchemists served as *aide memoir* for the researchers themself and for communication, even across language barriers. At the same time, however, their meaning was hidden except to a small group of specially trained practitioners.

Greek cosmology is described in the Τίμαιος (Tímaios) by Πλάτων Ριάτον (ca. 428-348 BC) [1], but goes back to earlier philosophers (Ἐμπεδοκλῆς Empedoklḗs ca. 490-430 BC, Δημόκριτος Dēmókritos ca. 460–370 BC). Assume a cube of some material, say, iron. This cube could be cut in halves, those halves into halves again, and so on. However, this is not possible *ad infinitum*, but at some point one would reach a limit, where further division is no longer possible. These smallest possible particles are called atoms (from Greek  $\ddot{\alpha}$ τομος átomos = undividable). There are 4 kinds of atoms, shaped like those PLATONIC bodies constructed from triangles: tetrahedron, octahedron, icosahedron and cube. These different atomic shapes correspond to the 4 elements: the atoms of fire are tetrahedrons (prickly), soil cubes (tessellates Euclidean space and causes the solidity of the soil), water icosahedras (flows out of the hands like little balls) and air octahedrons (smooth, can hardly be felt). Each of those elements embodies a particular combination of the primary qualities hot - cold and wet - dry: air is hot and wet, fire hot and dry, soil dry and cold and water wet and cold. Air is gaseous, water liquid and soil solid, fire is consuming. Fire represents the male, water the female principle, air and soil are transition elements.

Each of the basic elements is also associated with one of the 4 bodily fluids that must be in balance to avoid disease, they also correspond to temperaments: blood – air – sanguinic, black gall – soil – melancholic, yellow gall – fire – choleric and slime – water – phlegmatic (humoral pathology, Ἱπποκράτης Hippokrates 460–370 BC, Γαληνός Ga-LENOS, 129–199 AD, أبو علي الحسين بن عبد الله ابن سينا Abū Alī al-Husain ibn Abd Allāh ibn Sīnā (Avicenna) 980–1037 AD).

The fifth platonic body – dodecaeder – is not composed of triangles, is considered the most noble and represents the cosmos or the spirit.

Alchemy had three goals:

- the preparation of chemicals, often in the context of practical purposes (*e.g.*, metals and dyes). This is now handled by chemistry.
- the preparation of medicines that can cure diseases. This is now dealt with by pharmacology.
- the transmutation of base metals (like lead) into noble metals like silver and gold (Gr.  $\chi\rho\nu\sigma\sigma\sigma\sigma\iota\alpha$ , chrysopoeia = gold making). Today we understand that this requires the transformation of elements (nuclei with different number of protons), which is not possible by chemistry. Nuclear physics can do so in particle accelerators by bombarding bismuth with high energy atoms to kick out 4 protons and 6–9 neutrons from the <sup>209</sup><sub>83</sub>Bi-nuclei to produce a variety of <sub>79</sub>Au-isotopes, of which only <sup>197</sup><sub>79</sub>Au is not radioactive [2]. Also, the process requires vast amounts of energy (worth about US\$ 5000 per h, for 1 d to produce a few thousand gold atoms) and is thus not cost effective. For true alchemists, however, transmutation was only a symbol for obtaining spiritual enlightenment by liberating ones essence from the worldly personality.

Later authors added the quintessence, an eternal substance that forms the basis of the other elements. Philippus Theophrastus Aureolus Bombast von Hohenheim (Paracelsus) 1493–1541 [3] replaced the 4 elements from antiquity with the *tria prima* (original trias) mercury (volatile), sulfur (burning) and salt (stabilising). He didn't mean the substances we take from the lab shelf, but their "philosophical" equivalent. Paracelsus based medicine on observation rather than philosophical book wisdom and explored the pharmaceutical use of minerals, complementing the plants suggested by Galenos. He introduced the concept that substances toxic in higher doses may be curative in low (*dosis facit venenum*, the dose makes the poison) and is the father of modern toxicology. In particular, he experimented with mercury against the "French disease" (syphilis), but the results were, at best, variable. It is thus not surprising that Paracelsus died from chronic exposure to mercury vapours as attested by the Hg-concentration in his bones.

нех	Hex Decimal Char Name	Char	Name	Description
1F747	128 839	¢	Spirit	
1F700	128768	ы	Quintessence	aether
1F701	128769	⊲	Air	
1F702	128770	⊲	Fire	
1F703	128771	₽	Soil	
1F704	128772	⊳	Water	
1F70E	128782	∢€	Philosopher's Sulphur	
2721	10017	✿	Materia prima	

# 2 Compounds

Hex	Decimal	Char	Name	Description
1F705	128773	Ъ	Aqua fortis	Nitric acid HNO <sub>3</sub>
1F706	128774	₿	Aqua regia 1	1 part nitric, 3 parts hydrochloric acid NOCl
1F707	128775	€	Aqua regia 2	
1F708	128776	9	Aqua vitae 1	Ethanol, distilled spirit CH <sub>3</sub> -CH <sub>2</sub> -OH
1F709	128777	>	Aqua vitae 2	
1F70A	128778	+	Vinegar	acetic acid CH <sub>3</sub> -COOH
1F70B	128779	*	distilled vinegar 1	
1F70C	128780	÷	distilled vinegar 2	
1F710	128784	ъź	Sublimate of mercury 1	mercury(II)chloride HgCl <sub>2</sub>
1F711	128785	¦>+	Sublimate of mercury 2	
1F712	128786	ф+	Sublimate of mercury 3	
1F713	128787	盟	Cinnabar	mercury(II)sulphide HgS
1F714	128788	Φ	Salt	sodium chloride NaCl
1F715	128789	θ	Nitre	salpeter, KNO <sub>3</sub>
1F716	128790	Θ	Vitriol 1	sulphuric acid H <sub>2</sub> SO <sub>4</sub>
1F717	128791	⊕	Vitriol 2	
1F718	128792	x	Rock salt 1	sal gemmae, impure NaCl
1F713	128793	Ŷ	Rock salt 2	
1F71C	128796	в	Iron ore 1	
1F71D	128797	ත්	Iron ore 2	
1F71E	128798	₩>	Crocus of iron	crocus martis, rust
1F720	128800	റ്	Copper ore	
1F723	128803	0+0	Crocus of copper 1	copper(II)oxyde CuO
1F724	128804	\$	Crocus of copper 2	
1F721	128801	54	Iron copper ore	chalcopyrite CuFeS <sub>2</sub>
1F71B	128795	જ	Sublimate of copper 1	copper(I)chloride CuCl
				Continued on next name

continued on next page

Нех	Decimal	Char	Name	Description
1F71C	128796	*0+	Sublimate of copper 2	
1F725	128805	+0+	Copper antimonate 1	CuSb <sub>2</sub> O <sub>6</sub>
1F726	128806	+0+	Copper antimonate 2	
1F728	128808	⊕	Verdigris	patina on copper (acetate, hydroxyde, chloride)
1F729	$128\ 809$	ংগ	Tin ore	Cassiterite SnO <sub>2</sub>
1F72A	128810	4	Lead ore	Galena PbS
1F72B	128 811	ĥ	Antimony ore	stibnite Sb <sub>2</sub> S <sub>3</sub>
1F72C	128 812	*0	Sublimate of antimony	senarmontite Sb <sub>4</sub> O <sub>6</sub>
1F72D	128 813	+00	Salt of antimony	Antimony sulphate Sb <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>
1F72E	128814	₩D	Sublimate of salt of antimony	an antimony oxyde from decomposition of the sulphate?
1F72F	128 815	+∰8	Vinegar of antimony	may be $Sb(CH_3COO)_3$ , but this is unstable
1F736	128 822	œ	Alkali 1	sal alkali Na <sub>2</sub> CO <sub>3</sub> or K <sub>2</sub> CO <sub>3</sub>
1F737	128 823	្រ	Alkali 2	
1F738	128824	Ø	Marcasite	FeS <sub>2</sub> (originally included iron pyrite or fools gold)
1F739	128825	ж	Sal ammoniak	ammonium chloride NH <sub>4</sub> Cl
1F73B	128 827	60	Realgar 1	$As_4S_4$
1F73C	128 828	83	Realgar 2	
1F73D	128829	0	Auripigment	As2S3
1F73E	128830	처	Bismuth ore	bismuthinite Bi <sub>2</sub> S <sub>3</sub> or bismite Bi <sub>2</sub> O <sub>3</sub> ?
1F73F	128 831	₽	Tartar1	wine stone, potassium hydrogen tartrate
1F740	128 832	≯	Tartar2	
1F741	128 833	э+	Quicklime	calcium oxyde CaO
1F742	128834	8	Borax 1	$Na_2B_4O_7 \times 10H_2O$
1F743	128 835	ß	Borax 2	
1F744	128836	0	Borax 3	
1F745	883	1	Alum	double salt like KAI(SO <sub>4</sub> ) <sub>2</sub> × 12 H <sub>2</sub> O

Yati	Hex Decimal Char Name	Char	Name	Description
1F753	1F753 128 851	\$		magnetite, Fe(II, III)oxyde
1F758	128856	Ъ	Potashes	K <sub>2</sub> CO <sub>3</sub>
1F75C	128860	Ø	Stratum super stratum 1 layer over layer	layer over layer
1F75D	128861	¥	Stratum super stratum 2	

# 3 Mixtures

Hex	Decimal	Char	Name	Description
1F70F	128 863	#8	Black sulphur	residue left after sublimation of sulphur
1F754	128852	\$	Soap	sodium salt of mixed fatty acids
1F755	128853	D	Urine	
1F756	128854	∞	Horse dung	
1F757	128855	Ψ	Ashes	
1F759	128857	B	Brick	
1F75A	128858	₩	powdered brick	
1F75B	128859	8	Amalgam	alloy of mercury
1F74E	128862	0	Caput mortuum	slag left after a purification
1F746	1288338	•°	Oil	•
1F749	128841	£	Gum	
1F74A	128842	÷	Wax	
1F74C	128844	Ö	Calx	oxydised residue, also CaO
1F74D	128845	Ø	Tutty	ZnO or ZnCO <sub>3</sub>

## 4 Elements

The alchemist's idea about elements (atoms shaped like different PLATONIC bodies) was very different from ours (different number of protons in the nucleus). In the following, we list elements in our modern understanding. Even then, however, there can be misunderstandings. "Regulus of antimony" is quite clear, a drop of antimony left after purification. However, "regulus of iron" and "regulus of copper" also mean antimony, but made by reducing antimony oxyde with iron or copper, respectively. It was assumed that they were different because of the different synthetic route.

The symbols for iron/Mars and copper/Venus are also used for male and female.

Hex	Hex Decimal	Char	Char Name	Description
2646	9798	₽	Bismuth	also planet Neptune
2640	9792	0+	Copper	also planet Venus
1F71A	128794	0	Gold	4
2609	9737	0	Gold	also sun
2642	9794	ъ	Iron	also planet Mars
2644	96796	÷5:	Lead	also planet Saturn
1F730	128816	Ð	Regulus of Antimony 1	impure antimony
1F731	128817	+0	Regulus of Antimony 2	
1F71F	128799	₽€	Regulus of iron	antimony prepared from stibnite by reduction with iron
263F	9791	xo+	Mercury	also the planet mercury
1F71B	128795	ব	Silver 1	•
263D	9789	^	Silver 2	also first quarter moon
263E	0626	Ų	Silver 3	also last quarter moon
lF70D	128781	4+	Sulphur	4
2643	9795	त	Tin	also planet Jupiter

### 5 Processes

As mentioned, the *opus magnum* of gold making is really only an allegory of the journey to self-knowledge and, yes, eventually to god [4, 5]:

- **Calcination** exposure of a sample to high, dry heat (roasting, even glowing). Many substances under these condition loose weight, turn white and become easy to grind. First (black) stage of the *opus magnum*. The colour black represents chaos, and that what is hidden or buried, the *materia prima* from which all other things may be obtained. Spiritually, calcination means burning off our attachments to the world: the desire for status, fame, wealth and identity. Our preconceived notions about ourself are put to the test by fire, in an existential crisis, in the *dark night of the soul*.
- **Dissolution** forming a  $\rightarrow$  solution. In the *opus magnum*, the ashes obtained during calcination are dissolved in water, the symbol of the unconscious or hidden. Spiritually, we free ourselves from our inauthentic and acquired traits. The dissolution stage involves freeing repressed emotions from traumatic events that we have pushed down into our subconsciousness (dissolution of the ego [5]), and can be a cathartic step.
- **Separation** is the 3rd stage of the *opus magnum*, where the products of dissolution are filtered and separated. Whilst the first stages were associated with the elements fire and water, this one is associated with air. The pure essence is extracted from the mixture. Spiritually, we leave our acquired personality in form of engrained thought processes and emotional triggers to become our true, essential self. Collect all the things in you that are helpful for yourself and for others, and let go of everything else. After the turmoil of the first steps, we can now enjoy the stillness of being removed from all that is inauthentic and artificial.
- **Conjunction** means bringing together the elements purified in the first three stages by fire, water and air in the sign of the soil. Spiritually, we bring what is left of us together to form a new, authentic personality. The conflict of dualities like body and soul, spirit and matter, conscious and unconscious are resolved. Feminine qualities like emotion and intuition join male like intellect and logic.
- **Fermentation** exposure to microorganisms for longer time to achieve a chemical reaction and remove what is no longer needed.
- Putrefaction leaving a sample undisturbed, often after adding the desired material (seed). Both fermentation and putrefaction form the 5th stage of the *opus magnum*: the removal of the old, unauthentic self. This process can be painful, but we cannot see dawn before we have gone through the darkest of nights.
- **Distillation** process of vaporising and then condensing a substance. The different boiling points of the components of a mixture are used for purification of the essence.

In spiritual alchemy, our core identity is freed from any inferior elements. The ego is no longer dominating, so that the soul can be heard.

**Coagulation** old term for crystallisation. The result is the philosophers stone. Spiritually, the self comes together in a healing process. This is called *rubedo*. This word also refers to the state achieved by the mage where he is fully attuned to the *anima mundi*, the fountainhead of creation and source of the *prima materia*.

Apart from the processes involved in the *opus magnum*, the following methods were used by alchemists:

**Ceration** allowing a hard, dry substance to absorb water while it is heated (imbibition) for the purpose of softening it (from Latin *cera* = wax).

Digestion heating a sample in an open vessel for long times, but without boiling it.

- Fixation turning a volatile compound into a solid that is not affected by fire
- Multiplication increasing the potency of an elixir or philosophers stone, often by repeating the process by which it was originally obtained

Precipitation letting a solid form from a solution and collecting it.

Projection process of transmuting base metals to gold using the philosopher's stone

- **Purify** increasing the concentration of a particular substance, if possible close to 100 %.
- **Regulus formation** getting the pure form of a metal (especially antimony) out of an ore.
- **Solution** one component (solute) is homogenously dispersed in a second component (solvent, usually, but not necessarily, a liquid).
- Sublimation heating a substance to turn it from the solid directly into the gaseous state and back, without forming a liquid first. The sublimate is called "flower".

**Tincture** extract in alcohol.

Hex	Decimal	Char	Name	Description
2648	9800	Υ.	Calcination	also aries
2650	9802	∿	Ceration	also Sagittarius
2649	9801	þ	Congelation	also Taurus
264C	9804	8	Digestion	also Leo
1F761	128865	чh	Dissolve 1	
1F762	128866	>	Dissolve 2	
1F760	128864	2	Distillation 1	
264D	9805	≞	<b>Distillation 2</b>	also Virgo
2651	9803	9%	Fermentation	also Capricorn
264A	9802	Ħ	Fixation	also Gemini
2652	9804	**	Multiplication	also Aquarius
1F75F	128863	₽	Precipitation	
2653	9805	×	Projection	also Pisces
1F763	128867	ఫి	Purify	
1F764	128868	ì	Putrefaction	
1F732	128818	31	Regulus 1	smelting of metallic ore
1F733	128819	0	Regulus 2	
1F734	128820	ų	Regulus 3	
1F735	128821	∑≁	Regulus 4	
264F	9807	ť	Separation	also Scorpio
264B	9803	69	Solution	also Cancer
1F75E	128862	4	Sublimation 1	
264E	9806	d	Sublimation 2	also Libra
1F748	128840	۴	Tincture	alcoholic extract

## 6 Tools

Alembic from Greek ἄμβιξ ambix = beaker over Arabic الإنبيق al-inbīq is a distillation head connecting two vessels. In the fist (cucurbit from βῖκος bîkos) a sample was heated, the second (receiver, from φιάλη phialē over Arabic قَابِلَة qābila) received the vapours condensed in a connecting tube (Greek σωλήν sōlēn). Its invention is attributed to MARIA PROPHETISSA of Alexandria in the 1st century AD (variously also called MARIA THE JEWESS or MARIA THE COPT). The bridge of modern chemical glassware is the closest equivalent.

#### Athanor furnance

- **Caduceus** is the staff of Hermes (Gr.) = Mercury (Lat., god of traders and thieves) with two snakes and wings. It should not be mixed up with the staff of Asclepios (Son of Apollo) with one snake and no wings, which is a symbol of medicine. The astrological/alchemists sign of Mercury is an older version of the caduceus, with the snakes protruding from the staff.
- Crucible a heat resistant ceramic vessel used to heat substances in fire.
- **Balneum Mariae** hot water bath invented by MARIA PROPHETISSA and still used to keep food warm in refectories and the like (*bain de Marie*). It consists of an outer vessel half-filled with a hot fluid (usually water) and an inner vessel that is filled with the material to be kept warm and immersed in the fluid of the outer vessel. The material in the inner vessel is kept at a constant temperature, without hot or cold spots.
- **Retort** (from Lat. *retortus* = curved backward) glass vessel used by alchemists. Heating it was an art in itself, as the soda-lime glasses available at the time were liable to crack when heated unevenly. In the modern chemical industry, vessels of any shape and material used for pyrolysis are still called retort (production of shale oil, charcoal, recovery of Hg in gold mining). In the laboratory, the LIEBIG condenser has largely replaced the retort.
- Scepter of Jove or bident, a pitchfork-like instrument with two prongs, was used in Roman time for the consecration of a place struck by lightning. It is probably a symbol for Jupiter's lightning bolt. The name may be derived from the young sheep sacrificed in the ritual (so young as to have only two teeth). The bident is also the symbol for Hades (Pluto), the god of the underworld.
- Staff of Asclepios Staff with a snake (allegedly a Aesculapian adder Zamenis longissimus (LAURENTI, 1768), Colubridae) wound around it. Originally, the "snake" is probably a Guinea worm (*Dracunculus medinensis* L., Dracunculidae), which already in ancient Egypt was removed from affected limbs by slowly pulling it out and winding it around a piece of wood.

**Trident** is similar to the bident, but has three prongs. It is the symbol of Poseidon (Neptune), god of the seas.

### Starred Trident

#### Vapour bath

It is noteworthy that there were female alchemists at a time when females were generally limited to "kitchen, children and church", and that the work of these female alchemists was highly respected by their male colleagues. Maria Prophetissa and Cleopatra The Alchemist (Alexandria, ca. 3rd century AD, not related to the Ptolemaic queens) may be the most well-known of them.

Hex	Decimal Char	Char	Name	Description
1F76A	128874	×	Alembic 1	distillation head
2697	9879	€	Alembic 2	
2695	9877	₩	Staff of Asclepius	symbol of medicine
1F750	128848	Ж	Caduceus 1	staff of Hermes = Mercury (with two snakes)
2624	9764	∄≫	Caduceus 2	
1F765	128869	V	Crucible 1	ceramic, heat-resistant vessel
1F766	128870	Ð	Crucible 2	
1F767	128871	⊳	Crucible 3	
1F768	128872	⊢	Crucible 4	
1F769	128873	۵	Crucible 5	
1F76B	128875	£	Balneum Mariae	water bath
1F76D	128877	୭	Retort	glass vessel
1F74F	128879	<del>9</del> 6	Scepter of Jove	
1F751	128849	۲	Trident	
1F752	128850	¥	Starred Trident	
1F76C	128876	9	Vapour bath	

## 7 Astronomy and astrology

#### 7.1 Astrology

- **Regulus** brightest star system (apparent magnitude of +1.35) in the constellation Leo ( $\alpha$  Leonis). Actually consists of 4 stars, Regulus A is a blue-white main-sequence star, its companion has not been observed directly but is probably a white dwarf. Regulus B and C are main sequence stars.
- Ascending node if the plane defined by the orbit of a celestial body has an angle (inclination)  $\neq 0$  to a reference plane, then the orbit intersects the reference plane in two points. The one crossed by the north-moving body is called the ascending node (Latin *caput draconis* = dragon's head or Greek  $\alpha \nu \alpha \beta \iota \beta \dot{\alpha} \zeta \omega \nu$  anabibazon). In astrology, these terms refer to the crossings of the orbit of the moon with the apparent orbit of the sun across the sky.
- **Descending note** The node of the south-moving body (*cauda draconis* = dragon's tail or καταβιβάζων catabibazon).
- **Conjunction** is the apparent meeting of two celestial bodies as seen from earth (angle  $\pm 10^{\circ}$ ). For example, a conjunction of sun and moon is visible as solar eclipse. "Great conjugation" we call the meeting of Jupiter and Saturn, its occurance 7 BC may have been the biblical star of Bethlehem (Mt 2<sub>2</sub>).
- **Opposition** is the situation where two celestial bodies appear (from the earth) to have an angle of 180°. Usually, one of the bodies is the sun, the other then is visible during the entire night. A near opposition of moon and sun is called full moon, an exact opposition lunar eclipse. Planets have their smallest distance from the earth during their opposition.

Sextile two celestial bodies appear to have an angle of 60°.

Semisextile two celestial bodies appear to have an angle of 30°.

Quincunx two celestial bodies appear to have an angle of 150°.

- Sesquiquadrate two celestial bodies appear to have an angle of 135°.
- Lot of fortune or lucky point (Lat. *Pars Fortunae*), its exact meaning varies between ancient, arabic and western astrologers.
- **Occultation** occurs when one object is hidden from the observer by a second moving between them. If the second object is too small to hide the first completely, we call this *transit*.
- Lunar eclipse moon becomes invisible because of an exact opposition with the sun (moon enters the shadow cast by the earth).

Hex	Hex Decimal Char Name	Char	Name	Description
1F732	128818	31	Regulus 1	one of the brightest stars, also the process of smelting
1F733	128819	@	Regulus 2	
1F734	128820	ų	Regulus 3	
1F735	128821	Ð+	Regulus 4	
260A	9738	4	AscendingNode	
260B	9739	>	DescendingNode	
260C	9740	ο,	Conjunction	
260D	9741	°0	Opposition	
26B9	9913	*	Sextile	
26BA	9914	я	Semisextile	
26BB	9915	ĸ	Quincunx	
26BC	9916	며	Sesquiquadrate	
1F774	128884	8	LotOfFortune	
1F775	128885	•	Occultation	hiding one celestial body by another
1F776	128886	••	LunarEclipse	

## 7.1.1 Star signs

Hex	Decimal	Char	Char Name	Description
2648	9800	*	Aries	also calcination
2649	9801	þ	Taurus	also congelation
264A	9802	Ħ	Gemini	also fixation
264B	9803	69	Cancer	also solution
264C	9804	8	Leo	also digestion
264D	9805	Ð	Virgo	also distillation
264E	9806	đ	Libra	also sublimation
264F	9807	ť	Scorpio	also separation
2650	9808	5	Sagittarius	also ceration
2651	9809	9%	Capricorn	also fermentation
2652	9810	**	Aquarius	also multiplication
2653	9811	×	Pisces	also projection

## 7.2 Solar system

×	Hex Decimal Char Name	Char	Name	Description
2609	9737	0	Sun	also gold
263D	9789	^	First quarter moon	also silver
263E	9790	Ų	Last quarter moon	
26B8	9912	4	Black moon Lilith	2nd focal point of lunar orbit
263F	9791	30 <del>1</del>	Mercury	also the element mercury
2640	9792	0+	Venus	also copper
H	9793	+0	Earth	1
2642	9794	ъ	Mars	also iron
2643	9795	त	Jupiter	also tin
2644	9796	÷	Saturn	also lead
2645	9797	ħ	Uranus	
2646	9798	₽	Neptune	also bismuth
2647	6626	ы	Pluto 1	
2BD3	11 219	)+	Pluto 2	

## 7.2.1 Dwarf planets

Нех	Hex Decimal	Char	Char Name	Description
1F77B	128 891	৽হ	Haumea	
1F77C	128892	0	Makemake	
1F77D	128893	₩	Gonggong	
1F77E	128894	Ø	Quaoar	
1F77F	128895	֎	Orcus	
2BFO	11248	×	Eris 1	
2BF1	11249	•	Eris 2	
2BF2	$11\ 250$	ð	Sedna	

### 7.2.2 Asteroids

Hex	Hex Decimal		Char Name	Description
26B3	2066	~	Ceres	
26B4	9066	↔	Pallas	
26B5	6066	₩	Juno	
26B6	9910	⊹≽	Vesta	
26B7	9911	×o	Chiron	

# 8 Measures

Hex	Hex Decimal	Char	Char Name	Description
IF76E	128878	843	Hour	
29D6	10710	м	Hour	
29D7	10711	н	Hour	
1F76F	128879	م	Night	
1F770	128880	S.	DayNight	
1F771	128881	⊠	Month	
1F772	128882	8	HalfDram	1 dram $\approx$ 3.6 mL
1F773	128883	36	HalfOunce	1 ounce $\approx 28-31$ g

#### References

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