

acetaminophen	$\text{C}_8\text{H}_9\text{NO}_2$
acetic acid	$\text{CH}_3\text{COOH} + \text{H}_2\text{O}$
acetone	CH_3COCH_3
acetylene gas	C_2H_2
acetylsalicylic acid	$\text{C}_9\text{H}_8\text{O}_4$
adenine	$\text{C}_5\text{H}_5\text{N}_5$
aluminum	Al
aluminum hydroxide	$\text{Al}(\text{OH})_3$
aluminum oxide	Al_2O_3
ammonia	NH_3 (aq) or NH_4OH
ammonium bifluoride	NH_4HF_2
ammonium carbonate	$(\text{NH}_4)_2\text{CO}_3$
ammonium nitrate	NH_4NO_3
ammonium persulfate	$(\text{NH}_4)_2\text{S}_2\text{O}_8$
amylose	$(\text{C}_6\text{H}_9\text{O}_5)_x$
argon	Ar
ascorbic acid	$\text{C}_6\text{H}_8\text{O}_6$
barrelene	C_8H_8
benzene	C_6H_6
benzoyl peroxide	$\text{C}_{14}\text{H}_{10}\text{O}_4$
bismuth subsalicylate	$\text{C}_7\text{H}_5\text{BiO}_4$
bohemamine	varies of CHNO
boric acid	H_3BO_3
bromthymol blue	$\text{C}_{27}\text{H}_{28}\text{Br}_2\text{O}_5\text{S}$
buckminsterfullerene	C_{60}
butane	C_4H_{10}
caffeine	$\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2$
calcium carbonate	CaCO_3
calcium chloride	CaCl_2
calcium sulfate dihydrate	$\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
carbon dioxide	CO_2
carbonic acid	H_2CO_3
carrageenan	polysaccharide
cellulose	$(\text{C}_6\text{H}_{10}\text{O}_5)_x$
chlorophyll	v, $\text{C}_{55}\text{H}_{72}\text{O}_5\text{N}_4\text{Mg}$
citric acid	$\text{C}_6\text{H}_8\text{O}_7$
cubane	C_8H_8

dextrose	$C_6H_{12}O_6$
dimedone	$C_8H_{12}O_2$
dynamite	20-60% nitroglyc
ethanol, ethyl alcohol	C_2H_5OH
feldspar	varies, $KCaSiONaAl$
ferric oxide	Fe_2O_3
fructose	$C_6H_{12}O_6$
glucose	$C_6H_{12}O_6$
glycerin, glycerol	$C_3H_8O_3$
gum Arabic	CH_4O_3S
hematite	Fe_2O_3
housane	C_5H_8
hydrochloric acid	HCl
hydrogen peroxide	H_2O_2
hypochlorous acid	$HClO$
kinetin	$C_{10}H_9N_5O$
lactic acid	$C_3H_6O_3$
lead (II) bromide	$PbBr_2$
magnesium chloride	$MgCl_2$
magnesium silicate	$Mg_3Si_4O_{10}(OH)_2$
magnesium sulfate	$MgSO_4 \cdot 7H_2O$
mesityl oxide	$CH_3C(O)CH=C(CH_3)_2$
methane	CH_4
methanol	CH_3OH
methyl dihydrojasmonate	$C_{13}H_{22}O_3$
methylene blue	$C_{16}H_{18}ClN_3S$
monosodium glutamate	$C_5H_8NO_4Na$
NanoPutian	$C_{39}H_{42}O_2$
naphthalene	$C_{10}H_8$
nitroglycerin	$C_3H_5N_3O_9$
obsidian	varies, mostly SiO_2
olivine	$(Mg^{2+}Fe^{2+})_2SiO_4$
osmium (IV) chloride	$OsCl_4$
pagodane	$C_{20}H_{20}$
paraffin	C_xH_{2x+2} ($x > 19$)
perlite	SiO_2, AlO_3
phenol red	$C_{19}H_{19}SO_4$

phosphoric acid	H_3PO_4
phosphorous tribromide	PBr_3
potassium carbonate	K_2CO_3
potassium hydroxide	KOH
potassium nitrate	KNO_3
propane	C_3H_8
propene	C_3H_6
pyrrole	$\text{C}_4\text{H}_4\text{NH}$
rubidium hydroxide	RbOH
silicon dioxide	SiO_2
silver bromide	AgBr
sodium acetate	$\text{NaC}_2\text{H}_3\text{O}_2$
sodium bicarbonate	NaHCO_3
sodium carbonate	Na_2CO_3
sodium hydroxide	NaOH
sodium hypochlorite	NaClO
squaric acid	$\text{C}_4\text{H}_2\text{O}_4$
steel	Fe, C, Ni, B, V, Cr
sucrose	$\text{C}_{12}\text{H}_{22}\text{O}_{11}$
sulfuric acid	H_2SO_4
tin (II) sulfate	SnSO_4
trinitrotoluene	$\text{C}_6\text{H}_2(\text{NO}_2)_3\text{CH}_3$
urea	H_2NCONH_2
vermiculite	varies, MgFeAlSiOH
zinc chlorate	$\text{Zn}(\text{ClO}_3)_2$
zinc chloride	ZnCl_2
zinc oxide	ZnO

pain reliever, Tylenol
white vinegar
nail polish remover
ethene, welding (by mix with calcium carbide and H_2O)
aspirin
one of two purine bases that form DNA and RNA
tin foil, refined from mined aluminum ore (bauxite)
antacid tablets when blended with mag. hydroxide
alumina, for sandblasting, grinding
ammonium hydroxide, azane, a gas lighter than air
ammonium hydrogen fluoride, toilet bowl cleaner
smelling salts (first-aid)
fertilizer, single-use cold pack
circuit board etching solution, colorless white salt
corn starch
gas in incandescent light bulbs
vitamin C
useful to theorists because of unusual molecular geometry
a hydrocarbon (H and C only), in crude oil, elem. Petrochemicals
up to 10% solution for acne treatment
Pepto-Bismol, Kaopectate
anti-tumor agent
ant/roach killer
pH tester
bucky balls, no commercial use yet, e acceptor in acc/don solar cells
lighter fluid

limestone, antacid, paint
road salt, de-icer
gypsum, fertilizer, plaster, alabaster, tofu coagulant
dry ice, gas for air guns
soda water, carbonated water
food additive, (starch, glycogen, chitin) from seaweed
cotton fiber, paper, wood, hydrophilic for feces, diet
green pigment allows plants to absorb energy from light
sour salt, soap-making, photography
controlled energy storage, explosives

glucose, corn syrup
determines if a compound contains aldehyde

Everclear, rubbing alcohol
glassmaking, 40% of Earth's crust, most common
rust

fruit sugar

corn syrup, dextrose

emollient, skin-softening, delays evap of water

gum acacia, a binder that turns pigments into paint

main component of iron ore, iron(III)oxide

colorless, volatile liquid, saturated cycloalkane

industrial, mostly consumed by the producer

peroxide, antiseptic cleaner

laundry bleach

plant hormone

milk acid

by-product of lead gasoline burning

brand name Nigari/Lushui, makes tofu from soy milk

talc, softest mineral, absorbs CO₂

Epsom salt, laxative, anti-inflammatory

volatile, colorless liquid with strong cat urine odor

natural gas

methyl alcohol, gasline antifreeze

perfume that smells like jasmine

methidote, used to treat small injured fish

msg, flavor enhancer

organic molecules whose structural formulae look like humans

mothballs, pesticide, deodorant

explosive liquid, heart treatment, freeze pt 55° F

volcanic glass for sharp knives

green sand beaches, carbon sequestration

synth of other osmium compounds

carbon skeleton resembles a pagoda

candle wax

from hydrated obsidian, volcanic glass, botany uses, constr., plaster

pH tester for swimming pools

pH reducer
conversion of alcohols to alkyl bromides
potash, fertilizer
soap
saltpeter, gunpowder, fertilizer, sausage curing
fuel, by-product of natural gas processing, oil refining
unsaturated, second simplest member of alkene hydrocarbons
colorless, volatile liquid used to make drugs
synth of other rubidium compounds
sand, also in magma
sensitive to light, used in photography
hand warmer
baking soda
washing soda, soda ash, "Arm and Hammer"
paper pulp, textiles, soap, drinking wtr, drn clnr
bleach
treats warts, cold sores, and hair loss
alloys of steel
table sugar
drain clnrs, bttries, fertlizr, wstwtr trtmnt, chem synth
source of tin(II) ions uncontaminated by tin(IV)
explosive, not dynamite (from nitroglycerin, 20-60%)
carbamide, fertilizer, main N subst. in urine
many uses in botany
oxidizing agent in explosives
textile processing, metallurgical fluxes, chem synth
sunscreen

5% solution

DNA-pairs with thymine, in RNA-pairs with uracil
same as aluminium(?), often wax-coated to reduce flammability

grinding telescope lenses
household ammonia, 175 million tons worldwide, 85% for fertilizers
also a rust stain remover

The dissolution in water is endothermic. (absorbs heat) Also in hair bleach

changes color in 6.0 - 7.6 pH range

often in formulation with corn starch as binder

subst for gelatin
most abundant organic polymer on Earth
photosynthesis

also colorimetry, crystallography, luminescence, spectrophotometric

20 million tonnes produced in 2010

used with water

20 million tons produced worldwide annually
do not heat or store in metal container

extracted from brine, seawater
industrial uses, like asbestos?

solvent

clear to pale yellow oily liquid

used educationally, NanoKid, NanoAthlete, NanoPilgrim

decays to even less stability

osmium tetrachloride
highly crystalline solid hydrocarbon
Vaseline (with shorter molecules)

30 million tons worldwide annually, largest use of K
caustic potash

compressible to a liquid
for making plastic

KOH and NaOH used instead for safety

by-product of baking soda and vinegar reaction

can make by baking sodium bicarbonate at 350°
lye, caustic soda, 60 million tons produced worldwide
household bleach is 5%
quadratic acid

made from sugar beets and sugercane
oil of vitriol, made by contact, wet sulfuric acid, lead chamber processes

chloric acid