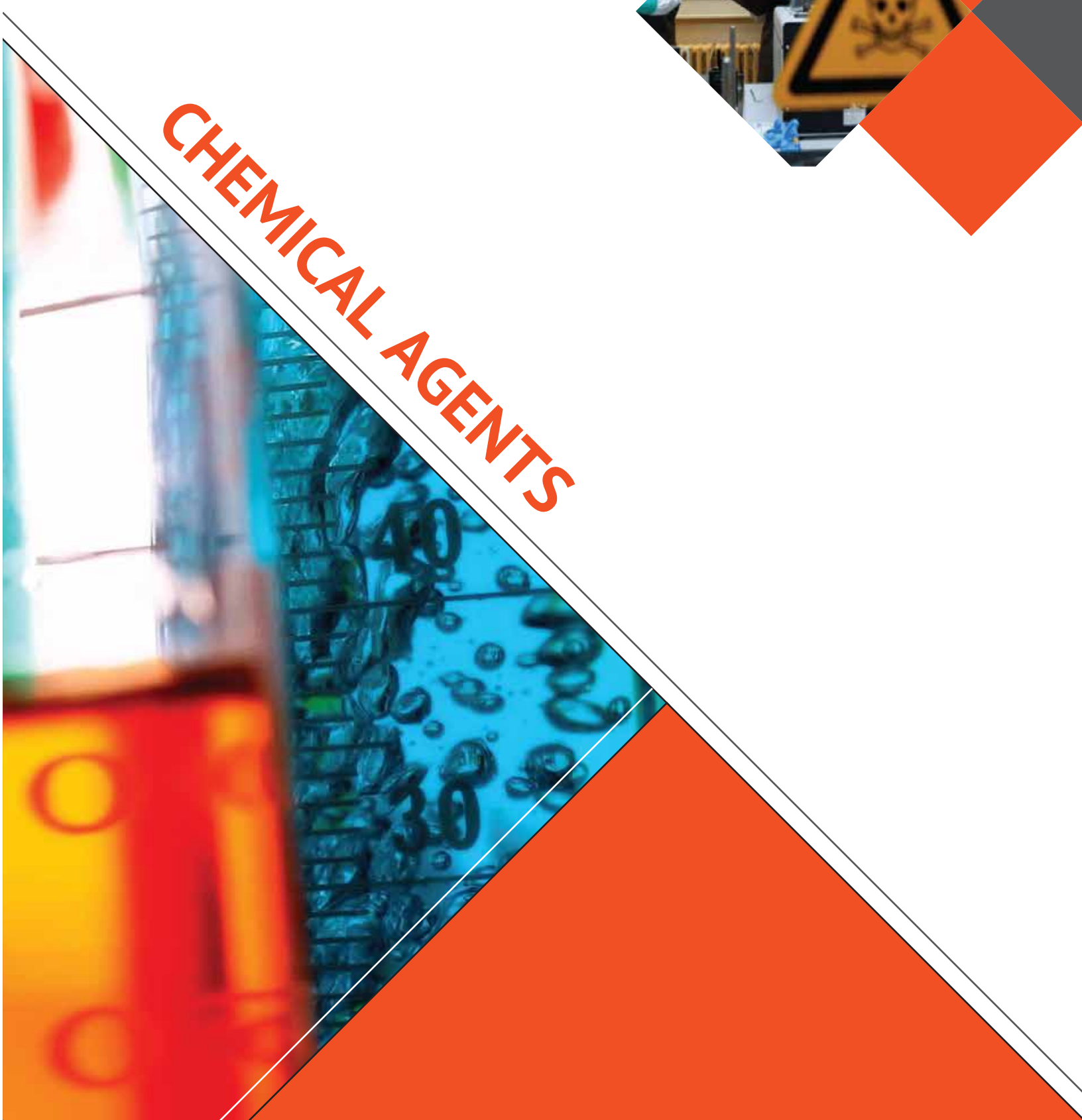




TEKNIPIPE & SUPPLIES



CHEMICAL AGENTS



RESISTANCE CODES

The following information is used in the following tables of chemical agents:

Code	Meaning	Typical result
140	The plastic is generally temperature resistant (F °) indicated by the code.	<3% swelling or loss weight <0.5% and elongation at rest does not change significantly.
R to 73	The plastic is resistant to temperature (F °) indicated by the code and can have limited resistance to high temperatures	<3% swelling or loss weight <0.5% and elongation at rest does not change significantly.
C to 73	The plastic has resistance limited to temperature (F °) indicated by the code and may be appropriate to certain terms.	Swelling <3-8% or weight loss <0.5-5% and / or elongation at rest decreases <50%
N	The plastic is not resistant.	Swelling > 8% or weight loss > 5% and / or elongation at rest decreases > 50%.
.....	No information.	

SUBSTANCE / FORMULA	CONCENTRATION	°F	°C
Acetaldehyde	100%	73	23
CH ₃ CHO	40%	73	23
Acetamide	5%	140	60
CH ₃ CONH ₂			
Acetic Acid	VAPOR	140	60
CH ₃ COOH	5%	....
	10%	....
	25%	140	60
	40%	....
	50%	....
	60%	73	23
	80%	....
	85%	....
	GLACIAL	...	
Acetic Anhydride		73	73
(CH ₃ CO) ₂ O			
Acetone	5%	73	23
CH ₃ COCH ₃	10%	....
	100%	....
Acetophenone		73	23
C ₆ H ₅ COCH ₃			
Acetyl Chloride			
CH ₃ COCl		....	.....
Acetylene	GAS 100%	73	23
HC≡CH			
Acetonitrile		.....	.....
Acrylic Acid	97%	140	60
H ₂ C=CHCOOH			
Acrylonitrile			
H ₂ C=CHC≡N		140	60
Adipic Acid			
COOH(CH ₂) ₄ COOH	SATURATED	140	60
Allyl Alcohol			
CH ₂ =CHCH ₂ OH	96%	140	60
Allyl Chloride			
CH ₂ =CHCH ₂ Cl		73	23
Aluminum Ammonium Sulfate			
(Alum)			
AlNH ₄ (SO ₄) ₂ ·12H ₂ O	SATURATED	140	60
Aluminum Chloride Aqueous			
AlCl ₃	SATURATED	140	60
Aluminum Fluoride Anhydrous			

SUBSTANCE / FORMULA	CONCENTRATION	°F	°C
AlF ₃	SATURATED	140	60
Aluminum Hydroxide			
Al(OH) ₃	SATURATED	140	60
Aluminum Nitrate			
Al(NO ₃) ₃ ·9H ₂ O	SATURATED	140	60
Aluminum Oxychloride		.....	.....
Aluminum Potassium Sulfate (Alum)			
AlK(SO ₄) ₂ ·12H ₂ O	SATURATED	140	60
Aluminum Sulfate (Alum)	SATURATED	140	60
Al ₂ (SO ₄) ₃	20%		
Ammonia Gas	100%	140	60
NH ₃			
Ammonia Liquid	100%	140	60
NH ₃			
Ammonium Acetate			
CH ₃ COONH ₄	SATURATED	140	60
Ammonium Bifluoride			
NH ₄ HF ₂	SATURATED	.....	.....
Ammonium Bisulfide			
(NH ₄)HS		.....	.....
Ammonium Carbonate			
(NH ₄) ₂ CO ₃	SATURATED	140	60
Ammonium Chloride			
NH ₄ Cl	SATURATED	140	60
Ammonium Dichromate			
(NH ₄) ₂ Cr ₂ O ₇		.....	.....
Ammonium Fluoride	10%	140	60
NH ₄ F	25%	140	60
Ammonium Hydroxide	10%	140	60
NH ₄ OH	30%	140	140
	CONC	.....	.....
Ammonium Metaphosphate	SATURATED	140	140
Ammonium Nitrate			
NH ₄ NO ₃	SATURATED	140	60
Ammonium Persulfate			
(NH ₄) ₂ S ₂ O ₈	SATURATED	140	60
Ammonium Phosphate			
(Monobasic)	ALL	140	60
NH ₄ H ₂ PO ₄			
Ammonium Sulfate	SATURATED	140	60
(NH ₄) ₂ SO ₄	20%	.....	...
Ammonium Sulfide	DILUIDO	140	60

SUBSTANCE / FORMULA	CONCENTRATION	°F	°C
(NH ₄) ₂ S	SATURATED	140	60
Ammonium Thiocyanate			
NH ₄ SCN	50-60%	140	60
Amyl Acetate			
CH ₃ COOC ₅ H ₁₁		73	23
Amyl Alcohol			
C ₅ H ₁₁ OH		140	60
n-Amyl Chloride			
CH ₃ (CH ₂) ₃ CH ₂ Cl		73	23
Anisole			
C ₇ H ₈ O		.....	.....
Aniline			
C ₆ H ₅ NH ₂		73	23
Aniline Chlorohydrate		73	23
Aniline Hydrochloride			
C ₆ H ₅ NH ₂ ·HCl	SATURATED	140	60
Anthraquinone C ₁₄ H ₈ O ₂		73	73
Anthraquinone Sulfonic Acid			
C ₁₄ H ₇ O ₂ ·SO ₃ ·H ₂ O		140	60
Antifreeze		....	....
Antimony Trichloride			
SbCl ₃	SATURATED	140	60
Aqua Regia			
(Nitrohydrochloric Acid)			
Arsenic Acid			
H ₃ AsO ₄		140	60
Aryl Sulfonic Acid			
C ₆ H ₅ SO ₃ H		73	23
Asphalt		73	23
Barium Carbonate			
BaCO ₃	SATURATED	140	60
Barium Chloride			
BaCl ₂ ·2H ₂ O	SATURATED	140	60
Barium Hydroxide	SATURATED	140	60
Ba(OH) ₂	10%		
	30%	140	60
Barium Nitrate			
Ba(NO ₃) ₂	SATURATED	140	60
Barium Sulfate			
BaSO ₄	SATURATED	140	60
Barium Sulfide			
BaS	SATURATED	140	60
BEER		140	60

SUBSTANCE / FORMULA	CONCENTRATION	°F	°C
BEET SUGAR LIQUORS		73	23
Benzaldehyde	10%	73	23
C6 H5 CHO	99%	.....	.....
Benzene			
C6 H6		120	49
Benzene Sulfonic Acid	10%	73	23
C6 H5 SO3 H	>10%	.....	.....
Benzoic Acid			
C6 H5 COOH	ALL	140	60
Benzoyl Chloride			
C6H5COCl	SATURATED	.....	.....
Benzyl Alcohol			
C6 H5 CH2 OH	SATURATED	140	60
Benzyl Chloride			
C7H7C	SATURATED	.....	.....
Bismuth Carbonate			
(BiO)2 CO3	SATURATED	140	60
Black Liquor	SATURATED	120	49
Bleach	5% Cl2	140	60
	12% Cl2	73	23
Borax			
Na3 B4 O7 ·10H2O	SATURATED	140	60
Boric Acid			
H3 BO3	SATURATED	140	60
BRAKE FLUID		140	60
BRINE (SALMUERA)	SATURATED	140	60
Bromic Acid	SATURATED		
HBrO3	10%	140	60
Bromine	LIQUID		
Br2	VAPOR 25%		
BROMINE WATER	COLD SATD		
Bromobenzene			
C6 H5 Br		.....	.....
Bromotoluene			
(Benzyl bromide)			
C6 H5 CH2 Br		.....	.....
Butadiene	50%	73	23
H2 C=CHCH=CH2	GAS	.....	.....
Butane	50%	140	60
C4 H10	GAS	.....	.....
n-Butanol			
C4 H9OH	LIQUID	.....	.....
Butyl Acetate			

SUBSTANCE / FORMULA	CONCENTRATION	°F	°C
CH ₃ COOCH ₂ CH ₂ CH ₂ CH ₃	100%	73	23
Butyl Alcohol			
CH ₃ (CH ₂) ₂ CH ₂ OH		140	60
Butyl Cellosolve			
HOCH ₂ CH ₂ O(CH ₂) ₃ CH ₃		.....	.....
n-Butyl Chloride			
C ₄ H ₉ Cl		.....	.....
Butyl Glycol			
HOCH ₂ CH ₂ O(CH ₂) ₃ CH ₃	LIQUID	.....	.....
Butylene ©			
CH ₃ CH=CHCH ₃	LIQUID	120	49
Butyl Phenol			
C ₄ H ₉ C ₆ H ₄ OH		73	23
Butyl Phthalate			
C ₁₆ H ₂₂ O ₄		.....	.....
Butyl Stearate			
CH ₃ (CH ₂) ₁₆ COO(CH ₂) ₃ CH ₃		.....	.....
Butynediol			
HOCH ₂ C≡CCH ₂ OH		.....	.....
Butyric Acid		73	23
CH ₃ CH ₂ CH ₂ COOH	20%	.....	.....
	LIQUID	.....	.....
Cadmium Cyanide			
Cd(CN) ₂		.....	.....
Calcium Bisulfide			
Ca(HS) ₂ ·6H ₂ O		140	60
Calcium Bisulfite			
Ca(HSO ₃) ₂	SATURATED	.....	.....
Calcium Carbonate			
CaCO ₃	SATURATED	140	60
Calcium Chlorate			
Ca(ClO ₃) ₂ ·2H ₂ O		140	60
Calcium Chloride	5%	.....	.....
CaCl ₂	SATURATED	140	60
Calcium Hydroxide		140	60
Ca(OH) ₂	2%	.....	.....
	30%	140	60
Calcium Hypochlorite	30%	140	60
Ca(OCl) ₂	SATURATED	.....	.....
Calcium Nitrate		140	60
Ca(NO ₃) ₂	50%	140	60
	SATURATED		
Calcium Oxide			

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
CaO		140	60
Calcium Sulfate			
CaSO4		140	60
Calcium Hydrogen Sulfide			
Ca(HS)2	>10%	.....	.....
Camphor			
C10 H16 O		73	23
Cane Sugar Liquors			
C12 H22 O11		140	60
Carbitol			
CH3CH2O(CH2)2O(CH2)2OH		.....	.....
Carbon Dioxide	DRY,100%	140	60
CO2	WET	140	60
Carbon Disulfide			
CS2		140	60
Carbon Monoxide			
CO	GAS	140	60
Carbon Tetrachloride			
CCl4		73	23
Carbonic Acid			
H2 CO3	SATURATED	140	60
Castor Oil		73	23
Caustic Potash			
KOH	50%	140	60
Caustic Soda (Sodium Hydroxide)			
NaOH	40%	140	60
Cellosolve		120	49
Cellosolve Acetate			
CH3 COOCH2 CH2 OC2 H5		.....	.....
Chloral Hydrate			
CCl3 CH (OH)2	ALL	140	60
Chloramine			
NH2 Cl	DILUTED	73	23
Chloric acid	10%	73	23
HClO3 ·7H2 O	20%	73	23
Chlorine Gas	0-20 PPM%	73	23
Cl2	20 50 PPM%	73	23
(MOISTURE)	50+ppm	73	23
Chlorine liquid			
Chlorinated water			
	SATURATED	120	49
Chloroacetic Acid	50%	73	23

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
CH ₂ ClCOOH	>10%	.....	.....
Chloroacetyl Chloride			
ClCH ₂ COCl		.....	.....
Chlorobenzene	DRY	73	23
C ₆ H ₅ Cl	LIQUID	.....	.....
Chlorobenzyl Chloride			
ClC ₆ H ₄ CH ₂ Cl		120	49
Chloroethanol			
ClCH ₂ CH ₂ OH	LIQUID	.....	.....
Chloroform	DRY	75	24
CHCl ₃	LIQUID	.....	.....
Chloromethane			
CH ₃ Cl	GAS	.....	.....
Chloropicrin			
CCl ₃ NO ₂		73	23
Chlorosulfonic Acid		120	49
ClSO ₂ OH	50%	.....	.....
	100%		
Chromic Acid	SATURATED	.....	.....
H ₂ CrO ₄	10%	73	23
	20%	.....	.....
	25%	.....	.....
	30%	73	23
	40%	73	23
	50%	73	23
Chromium Potassium Sulfate	>10%	.....	.....
CrK(SO ₄) ₂ ·12H ₂ O			
	SATURATED	73	73
Citric Acid			
C ₆ H ₈ O ₇	SATURATED	140	60
COCONUT OIL		73	23
COD LIVER OIL		.....	.....
COFFE		140	60
COKE OVEN GAS		140	60
Copper Acetate			
Cu(C ₂ H ₃ O ₂) ₂ ·H ₂ O	SATURATED	.....	.....
Copper Carbonate			
CuCO ₃	SATURATED	140	60
Copper Chloride			
CuCl ₂	SATURATED	140	60
Copper Cyanide			
CuCN	SATURATED	140	60
Copper Fluoride			

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
CuF ₂ · 2H ₂ O	2%	140	60
Copper Nitrate	30%	140	60
Cu(NO ₃) ₂ · 3H ₂ O	50%	.....	.....
Copper Sulfate			
CuSO ₄ · 5H ₂ O	SATURATED	140	60
CORN OIL		120	49
CORN SYRUP		140	60
COTTONSEED OIL		140	60
CREOSOTA		140	60
Cresol			
CH ₃ C ₆ H ₄ OH	90%	120	49
Cresylic Acid	50%	73	23
Crotonaldehyde		.....	.....
CH ₃ CH=CHCHO	LIQUID	....	....
CRUDE OIL		120	49
Cupric Chloride			
CuCl ₂ · 2H ₂ O	20%	....	....
Cupric Fluoride			
CuF ₂		140	60
Cupric Sulfate			
CuSO ₄ · 5H ₂ O	SATURATED	140	60
Cuprous Chloride			
CuCl	SATURATED	140	60
Cyclohexane			
C ₆ H ₁₂			
Cyclohexanol			
C ₆ H ₁₁ OH		73	23
Cyclohexanone			
C ₆ H ₁₀ O	LIQUID	120	49
DETERGENTS (HEAVY DUTY)		140	60
DEXTRIN (STARCH GUM)	SATURATED	140	60
Dextrose			
C ₆ H ₁₂ O ₆	SATURATED	140	60
Diacetone Alcohol			
CH ₃ COCH ₂ C(CH ₃) ₂ OH		.....	.....
Dibutoxyethyl Phthalate			
C ₂₀ H ₃₀ O ₆		.....	.....
n-Dibutyl Ether			
C ₄ H ₉ OC ₄ H ₉		73	23
Dibutyl Phthalate			
C ₆ H ₄ (COOC ₄ H ₉) ₂		73	23
Dibutyl Sebacate			
C ₄ H ₉ OCO(CH ₂) ₈ OCOC ₄ H ₉		73	23

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
Dichloroacetic Acid			
CHCl ₂ COOH	50%	.....	.....
Dichlorobenzene			
C ₆ H ₄ Cl ₂	LIQUID	120	49
Dichloroethylene			
C ₂ H ₂ Cl ₂	LIQUID	120	49
Diesel Fuels		73	23
Diethanolamine	SOLID	.....	.....
(CH ₂ CH ₂ OH) ₂ NH	20%	.....	.....
Diethylamine			
C ₄ H ₁₀ NH		120	49
Diethyl Ether			
C ₄ H ₁₀ O		140	60
Diglycolic Acid	SATURATED	140	60
O(CH ₂ COOH) ₂	10%	....	....
Dimethylamine			
(CH ₃) ₂ NH		73	23
Dimethylformamide		120	49
HCON(CH ₃) ₂	LIQUID	.....	.....
Dimethyl Phthalate			
C ₆ H ₄ (COOCH ₃) ₂		73	23
Dioctyl Phthalate			
C ₆ H ₄ (COOC ₈ H ₁₇) ₂		73	23
Dioxane		140	60
C ₄ H ₈ O ₂	LIQUID	.....	.....
Diphenyl Oxide			
(C ₆ H ₅) ₂ O	SATURATED	73	23
Disodium Phosphate			
Na ₂ HPO ₄		140	60
DISHWASHING LIQUID		....	....
DOWTHERM A		.....	.....
Ethanol	40%	.....	.....
C ₂ H ₅ OH	95%	....	....
	LIQUID	.....	.....
Ether			
ROR		73	23
Ethyl Acetate		73	23
CH ₃ COOCH ₂ CH ₃	LIQUID	.....	.....
Ethyl Acetoacetate			
CH ₃ COCH ₂ COOC ₂ H ₅		.....	.....
Ethyl Acrylate			
CH ₂ =CHCOOC ₂ H ₅		.....	.....
Ethyl Alcohol (Ethanol)			

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
C ₂ H ₅ OH		140	60
Ethyl Benzene			
C ₆ H ₅ C ₂ H ₅		73	23
Ethyl Chloride	DRY	73	23
C ₂ H ₅ Cl	GAS	.....	.....
Ethyl Chloroacetate			
ClCH ₂ COOC ₂ H ₅		.....	.....
Ethyl Ether			
(C ₂ H ₅) ₂ O	LIQUID		
Ethylene Bromide			
BrCH ₂ CH ₂ Br	DRY	.....	.....
Ethylene Chloride			
(Vinyl Chloride)			
CH ₂ CHCl	DRY	140	60
Ethylene Chlorohydrin		.....	.....
ClCH ₂ CH ₂ OH	LIQUID	.....	.....
Ethylene Diamine			
NH ₂ CH ₂ CH ₂ NH ₂		140	60
Ethylene Dichloride			
C ₂ H ₄ Cl ₂	DRY	73	23
Ethylene Glycol			
OHCH ₂ CH ₂ OH	LIQUID	140	60
Ethylene Oxide			
CH ₂ CH ₂ O		73	23
2-Ethylhexanol			
CH ₃ (CH ₂) ₃ CHC ₂ H ₅ CH ₂ OH		73	23
Fatty Acids			
R-COOH		120	49
Ferric Chloride (Aqueous)			
FeCl ₃	SATURATED	140	60
Ferric Hydroxide			
Fe(OH) ₃	SATURATED	140	60
Ferric Nitrate			
Fe(NO ₃) ₃ ·9H ₂ O	SATURATED	140	60
Ferric Sulfate		140	60
Fe ₂ (SO ₄) ₃	SATURATED	.....	.....
Ferrous Chloride			
FeCl ₂	SATURATED	140	60
Ferrous Hydroxide			
Fe(OH) ₂	SATURATED	140	60
Ferrous Nitrate			
Fe(NO ₃) ₂	SATURATED	140	60
Ferrous Sulfate		140	60

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
FeSO4	20%	.....	.....
	SATURATED	.....	.....
Ferrous Chloride		.....	.....
FeCl2	SATURATED	140	60
FISH OIL		140	60
Fluoroboric Acid		140	60
HBF4	SOLID	.....	.....
Fluorine Gas (Dry)			
F2	100%	73	23
Fluorine Gas (Wet)			
F2			
Fluorosilicic Acid	25%	.....	.....
H2 SiF	30%	140	60
	40%	.....	.....
	50%	140	60
	SATURATED	.....	.....
Formaldehyde	DILUTED	140	60
HCHO	35%	140	60
	37%	140	60
	50%	140	60
Formic Acid		140	60
HCOOH	10%	.....	.....
	40%	.....	.....
	50%	.....	.....
	85%	.....	.....
	100%	140	60
Freon 11			
CCl3F	100%	73	23
Freon 12	100%	73	23
CCl2F2	WORK. SOL.	.....	.....
Freon 21			
CHCl2F	100%	120	49
Freon 22			
CHClF2	100%	120	49
Freon 113			
C2Cl2F3	100%	73	23
Freon 114			
C2Cl2F4	100%	73	23
Fructose			
C6 H12 O6	SATURATED	140	60
FRUIT JUICE	WORK. SOL.	.....	.....
Furfural			
C4 H3 OCHO	100%	140	60

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
Gallic Acid			
$C_6H_2(OH)_3CO_2H \cdot H_2O$		73	23
GASOLINE, LEADED		73	23
GASOLINE, UNLEADED		73	23
GASOLINE(FUEL)		.....	.....
GASOHOL		73	23
GASOLINE SOUR		120	49
GELATIN		140	60
Glucose		140	60
$C_6H_{12}O_6 \cdot H_2O$	10%	.....	.....
GLUE		140	60
Glycerine		140	60
$C_3H_5(OH)_3$	LIQUID	.....	.....
Glycol			
$OHCH_2CH_2OH$		140	60
Glycolic Acid	SATURATED	140	60
$OHCH_2COOH$	10%	.....	.....
	30%	.....	.....
	65%	.....	.....
Glyoxal			
$OCHCHO$		140	60
GRAPE SUGAR		.....	.....
GRAPEFRUIT JUICE		.....	.....
GREASE		.....	.....
GREEN LIQUOR		.....	.....
Heptane (Type 1)		73	23
C_7H_{16}	LIQUID	.....	.....
n-Hexane		.....	.....
C_6H_{14}	LIQUID	.....	.....
Hexanol, Tertiary Type I			
$CH_3(CH_2)_4CH_2OH$		140	60
Hydraulic Oil (Petroleum)		73	23
Hydrazine		.....	.....
H_2NNH_2			
Hydrobromic Acid	20%	140	60
HBr	50%	140	60
	66%	.....	.....
Hydrochloric Acid	1%	.....	.....
HCl	10%	140	60
	20%	.....	.....
	30%	140	60
	CONC.	.....	.....
Hydrocyanic Acid		140	60

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
HCN	SATURATED	.....
	10%	.....	.....
Hydrofluoric Acid	DILUTED	140	60
HF	30%	140	60
	40%	.....	.....
	50%	120	49
	60%	140	60
	70%	....	....
	100%	120	49
	GAS	.....	.....
Hydrogen			
H ₂	GAS	140	60
Hydrogen Cyanide			
HCN		.....	.....
Hydrogen Fluoride, Anhydrous			
HF		.....	.....
Hydrogen Peroxide	3%	....	....
H ₂ O ₂	10%	.....	.....
	30%	.....	.....
	50%	140	60
	90%	73	23
Hydrogen Phosphide (Type I)			
PH ₃		140	60
Hydrogen Sulfide	DRY	140	60
H ₂ S	WET	140	60
Hydrogen Sulfite			
H ₂ SO ₃	10%	140	60
Hydroquinone			
C ₆ H ₄ (OH) ₂	SATURATED	140	60
Hydroxylamine Sulfate			
(NH ₂ OH)•H ₂ SO ₄		140	60
Hypochlorous Acid	10%	140	60
HOCl	70%	.....	.....
INKS		140	60
IODINE			
I ₂	10%	120	49
Isobutyl Alcohol			
(CH ₃) ₂ CHCH ₂ OH		140	60
Isooctane		73	23
(CH ₃) ₃ CCH ₂ CH(CH ₃) ₂	LIQUID	.....	.....
Isopropyl Acetate			
CH ₃ COOCH(CH ₃) ₂		73	23
Isopropyl Alcohol			

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
(CH ₃) ₂ CHOH		140	60
Isopropyl Ether			
(CH ₃) ₂ CHOCH(CH ₃) ₂		73	23
JP-4 FUEL		73	23
JP-5 FUEL		73	23
KEROSENE		140	60
KETCHUP		....	....
KETONES		73	23
	WORK. SOL.	.....	.....
KRAFT LIQUORS		120	49
Lactic Acid	10%	.....	.....
CH ₃ CHOHCOOH	20%	.....	.....
	25%	140	60
	80%	140	60
	LIQUID	.....	.....
LARD OIL		140	60
LATEX		140	60
Lauric Acid			
CH ₃ (CH ₂) ₁₀ COOH		120	49
Lauryl Chloride (Type I)			
CH ₃ (CH ₂) ₁₀ CH ₂ Cl		120	49
Lead Acetate			
Pb(C ₂ H ₃ COO) ₂ · 3H ₂ O	SATURATED	140	60
Lead Chloride			
PbCl ₂		120	49
Lead Nitrate			
Pb(NO ₃) ₂	SATURATED	120	49
Lead Sulfate			
PbSO ₄		120	49
Lead Tetraethyl			
C ₈ H ₂₀ Pb		....	....
LEMON OIL		....	....
LEMON JUICE		140	140
LIGROIN		....	....
LIME SLURRY		140	140
LIME SULFUR		120	49
Linoleic Acid			
CH ₃ (CH ₂) ₄ (CH=CHCH ₂) ₂ (CH ₂) ₆			
COOH		.....	.....
Linoleic Oil (Type I)		.....	.....
LINSEED OIL		73	73
LIQUEURS		120	49
Lithium Bromide			

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
Lithium Chloride			
LiCl		120	49
Lithium Hydroxide			
LiOH		120	49
Lubricating Oil (ASTM #1)		73	23
Lubricating Oil (ASTM #2)		73	23
Lubricating Oil (ASTM #3)		73	23
Magnesium Carbonate			
MgCO ₃		140	140
Magnesium Chloride	SATURATED	140	140
MgCl ₂	50%	....	....
Magnesium Citrate			
MgHC ₆ H ₅ O ₇ ·5H ₂ O		140	140
Magnesium Hydroxide			
Mg(OH) ₂	SATURATED	140	140
Magnesium Nitrate			
Mg(NO ₃) ₂ ·6H ₂ O		140	140
Magnesium Oxide			
MgO		.....	.....
Magnesium Sulfate			
MgSO ₄ ·7H ₂ O		140	140
Maleic Acid	SATURATED	140	140
HOOCCH=CHCOOH	50%	...	...
	10%	...	...
Malic Acid			
COOHCH ₂ CH(OH)COOH		140	140
Manganese Sulfate			
MnSO ₄ ·4H ₂ O		140	140
MARGARINE		....	....
Mercuric Chloride		140	140
HgCl ₂	SATD	.....	.....
Mercuric Cyanide			
Hg(CN) ₂	SATURATED	140	140
Mercuric Sulfate			
HgSO ₄	SATURATED	140	140
Mercurous Nitrate	SATURATED	140	140
HgNO ₃ ·2H ₂ O	10%	...	...
Mercury			
Hg	LIQUID	140	140
Methane			
CH ₄		140	140
Methanol (Methyl Alcohol)		140	140
CH ₃ OH	5%	....	....

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
	LIQUID	....	....
Methoxyethyl Oleate			
CH ₃ OCH ₂ CH ₂ OCCCC ₁₇ H ₃₃		.....	.....
Methyl Acetate			
CH ₃ CO ₂ CH ₃		120	120
Methyl Acrylate			
CH ₂ =CHCOOCH ₃	TECH PURE	140	140
Methyl Amine			
CH ₃ NH ₂		...	...
Methyl Bromide			
CH ₃ Br		73	73
Methyl Butyl Ketone			
CH ₃ CO(CH ₂) ₃ CH ₃	LIQUID	....	....
Methyl Cellosolve			
HOCH ₂ CH ₂ OCH ₃		120	120
Methyl Chloride			
CH ₃ Cl	DRY	120	120
Methyl Chloroform			
CH ₃ CCl ₃		120	120
Methyl Ethyl Ketone (MEK)			
CH ₃ COC ₂ H ₅	100%		
Methyl Isobutyl Carbinol			
(CH ₃) ₂ CHCH ₂ CH(CH ₃)OH		....	....
Methyl Isobutyl Ketone			
(CH ₃) ₂ CHCH ₂ COCH ₃		73	23
Methyl Isopropyl Ketone			
CH ₃ COCH(CH ₃) ₂		73	23
Methyl Methacrylate			
CH ₂ =C(CH ₃)COOCH ₃		140	140
Methyl Sulfate			
(CH ₃) ₂ SO ₄		140	140
Methylene Bromide			
CH ₂ Br ₂		120	49
Methylene Chloride			
CH ₂ Cl ₂	100%		
Methylene Chlorobromide			
CH ₂ ClBr		....	....
Methylene Iodide			
CH ₂ I ₂		120	120
Methylsulfuric Acid			
CH ₃ HSO ₄		.....	.....
MILK		140	140
MINERAL OIL		73	73

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
MOLASSES		140	140
Monochloroacetic Acid			
CH ₂ ClCOOH	50%	140	140
Monochlorobenzene			
C ₆ H ₅ Cl	TECH PURE	120	120
Monoethanolamine	.		
HOCH ₂ CH ₂ NH ₂		.....	.....
MOTOR OIL		140	140
Morpholine			
C ₄ H ₈ ONH		140	140
Mustard, Aqueous	WORK. SOL.	....	....
N-methyl Pyrrolidone			
C ₅ H ₉ NO	100%	....	....
NAPHTA		73	23
Naphthalene			
C ₁₀ H ₈		73	23
NATURAL GAS		140	140
Nickel Acetate			
Ni(OOCCH ₃) ₂ · 4H ₂ O		140	140
Nickel Chloride			
NiCl ₂	SATURATED	140	140
Nickel Nitrate			
Ni(NO ₃) ₂ · 6H ₂ O	SATURATED	140	140
Nickel Sulfate			
NiSO ₄	SATURATED	140	140
Nicotine			
C ₁₀ H ₁₄ N ₂		140	140
Nicotinic Acid			
C ₅ H ₄ NCOOH		140	140
Nitric Acid	5%	....	....
HNO ₃	10%	73	23
	20%	....	....
	25%	....	....
	30%	73	23
	35%	....	....
	40%	73	23
	50%	120	49
	65%	...	...
	70%	120	49
	85%	....	....
	95%	....	....
	100%		
Nitrobenzene			

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
C ₆ H ₅ NO ₂	100%		
Nitroglycerine			
CH ₂ NO ₃ CHNO ₃ CH ₂ NO ₃		73	23
Nitroglycol			
NO ₃ (CH ₂) ₂ NO ₃		.....	.....
Nitrous Acid			
HNO ₂	10	73	23
Nitrous Oxide			
N ₂ O		73	23
n-Octane			
C ₈ H ₁₈		....	.....
Oleic Acid			
CH ₃ (CH ₂) ₇ CH=CH(CH ₂) ₇		140	60
COOH			
Oleum			
x H ₂ SO ₄ oySO ₃			
OLIVE OIL		140	60
Oxalic Acid	50%	140	60
HOCCOOHo ₂ H ₂ O	10%	....	....
	SATURATED	.....	.....
Oxygen Gas			
O ₂		140	60
Ozone		120	49
O ₃	SATURATED		
PALM OIL		140	60
Palmitic Acid	10%	120	49
CH ₃ (CH ₂) ₁₄ COOH	70%	120	49
Paraffin			
C ₃₆ H ₇₄		140	60
PEANUT OIL		....	....
n-Pentane			
CH ₃ (CH ₂) ₃ CH ₃		120	49
Peracetic Acid			
CH ₃ COOOH	40%	....	....
Perchloric Acid (Type I)	10%	....	....
HClO ₄	20%	....	....
	15%	140	60
	70%	73	23
Perchloroethylene (tetrachloroethylene)			
Cl ₂ C=CCl ₂		120	49
PERPHOSPHATE		....	....
PETROLEUM ETHER		....	....

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
Phenol		140	60
C6 H5 OH	5%	...	...
	50%	....	....
	90%	140	60
	SOLID	...	...
Phenylhydrazine			
C6H5 NHH2		120	49
Phenylhydrazine Hydrochloride			
C6H5NHH2·HCl	10%	....	....
Phosphine			
PH3	GAS	...	...
Phosphoric Acid	10%	140	60
H3 PO4	50%	140	60
	75%	...	...
	85%	73	23
	98%	....	....
Phosphoric Anhydride			
P2 O5		....	....
Phosphorous (Red)		140	60
Phosphorous (YELLOW)		140	60
Phosphorus Oxychloride			
POCl3	LIQUID	...	...
Phosphorus Pentoxide			
P2 O5		140	60
Phosphorus Trichloride			
PCI3		120	49
PHOTOGRAPHIC SOLUTIONS		140	60
Phthalic Acid		140	60
C6 H4 (COOH)2	SUSP.	....	....
Picric Acid	10%	73	23
C6 H2 (NO2)3 OH	50%	....	....
	SATURATED	...	...
PINEOIL		73	23
PLATING SOLUTIONS(BRASS)		140	60
PLATING SOLUTIONS(CADMIUM)		140	60
PLATING SOLUTIONS(CHROME)		140	60
PLATING SOLUTIONS(COPPER)		140	60
PLATING SOLUTIONS(GOLD)		140	60
PLATING SOLUTIONS(LEAD)		140	60
PLATING SOLUTIONS(NICKEL)		140	60
PLATING SOLUTIONS(RHODIUM)		140	60
PLATING SOLUTIONS(SILVER)		140	60
PLATING SOLUTIONS(TIN)		140	60

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
PLATING SOLUTIONS(ZINC)		140	60
Potash (Aq)			
KOH	SATURATED	140	60
Potassium Alum			
AlK (SO ₄) ₂ o12H ₂ O		140	60
Potassium Aluminum Sulfate			
AlK (SO ₄) ₂ o12H ₂ O		...	...
Potassium Amyl Xanthate			
CH ₃ (CH ₂) ₄ OC(=S)-S.K		...	...
Potassium Bicarbonate			
KHCO ₃	SATURATED	140	60
Potassium Bi- chromate	SATURATED	...	...
K ₂ Cr ₂ O ₇	40%	...	...
Potassium Bisulfate			
KHSO ₄		140	60
Potassium Borate			
K ₂ B ₄ O ₇ o4H ₂ O		140	60
Potassium Bromate		140	60
KBrO ₃	10%		
Potassium Bromide			
KBr		140	60
Potassium Carbonate			
K ₂ CO ₃		140	60
Potassium Chlorate (Aqueous)			
KClO ₃		140	60
Potassium Chloride			
KCl		140	60
Potassium Chromate			
K ₂ CrO ₄		140	60
Potassium Cyanide			
KCN		140	60
Potassium Dichromate			
K ₂ Cr ₂ O ₇	SATURATED	140	60
Potassium Ethyl Xanthate			
KS ₂ COC ₂ H ₅		...	...
Potassium Ferricyanide			
K ₃ Fe(CN) ₆		140	60
Potassium Ferrocyanide			
K ₄ Fe(CN) ₆ o3H ₂ O		140	60
Potassium Fluoride			
KF		140	60
Potassium Hydroxide	4%	...	...
KOH	10%	...	...

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
	25%	140	60
	45%	...	...
	50%	....	....
Potassium hydrogen Sulfite	10%	...	...
KHSO ₃	SATURATED	...	...
Potassium Hypochlorite		120	49
KClO	3%	....	....
Potassium Iodide			
KI		140	60
Potassium Nitrate		140	60
KNO ₃	50%	....	....
Potassium Orthophosphate			
H ₂ KPO ₄	SATURATED	....	....
Potassium Perborate			
KBO ₃		140	60
Potassium Perchlorate			
KClO ₄		140	60
Potassium Permanganate	10%	140	60
KMnO ₄	20%	...	...
	25%	140	60
	30%	....	....
	SATURATED	.....	.....
Potassium Persulfate			
K ₂ S ₂ O ₈		140	60
Potassium Sulfate			
K ₂ SO ₄		140	60
Potassium Sulfide			
K ₂ S		140	60
Potassium Sulfite			
K ₂ SO ₃ · 2H ₂ O		140	60
Propane			
C ₃ H ₈		140	60
Propargyl Alcohol			
HC≡CCH ₂ OH		140	60
Propionic Acid			
CH ₃ CH ₂ CO ₂ H		140	60
Propyl Alcohol (Type I)			
CH ₃ CH ₂ CH ₂ OH		140	60
Propylene Carbonate			
C ₄ H ₆ O ₃	100%	...	...
Propylene Dichloride			
CH ₃ CHClCH ₂ Cl	100%		
Propylene Oxide			

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
CH ₃ CHCH ₂ O		140	60
Pyridine			
N(CH) ₄ CH		73	23
Pyrogallic Acid			
C ₆ H ₃ (OH) ₃		....	....
Quinone			
C ₆ H ₄ O ₂		140	60
Rayon Coagulating Bath		140	60
Salicylaldehyde			
C ₆ H ₄ OHCHO		120	49
Salicylic Acid			
C ₆ H ₄ (OH)(COOH)		140	60
Selenic Acid Aq.			
H ₂ SeO ₄		140	60
Silicic Acid			
SiO ₂ on H ₂ O		140	60
SILICONE OIL		73	23
Silver Acetate			
AgCH ₃ COO	SATURATED	....	....
Silver Chloride			
AgCl		....	....
Silver Cyanide			
AgCN		140	60
Silver Nitrate		140	60
AgNO ₃	50%	....	....
Silver Sulfate			
Ag ₂ SO ₄		140	60
SOAPS		140	60
Sodium Acetate			
CH ₃ COONa	SATURATED	140	60
Sodium Alum			
AlNa(SO ₄) ₂ o 12H ₂ O		....	....
Sodium Aluminate			
Na ₂ Al ₂ O ₄	SATURATED		
Sodium Benzoate		140	60
C ₆ H ₅ COONa	35%	....	....
	50%	....	....
Sodium Bicarbonate			
NaHCO ₃		140	60
Sodium Bisulfate		140	60
NaHSO ₄	50%	....	....
Sodium Bisulfite			
NaHSO ₃		140	60

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
Sodium Borate (Borax)			
Na ₂ B ₄ O ₇ ·10H ₂ O	SATURATED	140	60
Sodium Bromide	SATURATED	140	60
NaBr	50%	.....	.....
Sodium Carbonate			
Na ₂ CO ₃		140	60
Sodium Chlorate			
NaClO ₃	SATURATED	140	60
Sodium Chloride		140	60
NaCl	SATURATED	.....	.....
	10%	.....	.....
Sodium Chlorite			
NaClO ₂	25%	140	60
Sodium Chromate			
Na ₂ CrO ₄ ·4H ₂ O		140	60
Sodium Cyanide			
NaCN		140	60
Sodium Dichromate	SATURATED	.....	.....
Na ₂ Cr ₂ O ₇ ·2H ₂ O	20%	140	60
	50%	.....	.....
Sodium Ferricyanide			
Na ₃ Fe(CN) ₆ ·2H ₂ O	SATURATED	140	60
Sodium Ferrocyanide			
Na ₃ Fe(CN) ₆ ·10H ₂ O	SATURATED	140	60
Sodium Fluoride			
NaF		140	60
Sodium Hydrogen Sulfite			
NaHSO ₃	50%	.....	.....
Sodium Hydroxide	1%	.....	.....
NaOH	5%	.....	.....
	15%	140	60
	30%	140	60
	40%	.....	.....
	50%	140	60
	60%	.....	.....
	70%	140	60
Sodium Hypochlorite		140	60
NaOClO ₅ H ₂ O	2% Cl	.....	.....
	12.5% CL	.....	.....
Sodium Iodide			
NaI		.....	.....
Sodium Metaphosphate			
(NaPO ₃) _n		.....	.....

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
Sodium Nitrate			
NaNO ₃	SATURATED	140	60
Sodium Nitrite			
NaNO ₂		140	60
Sodium Palmitate			
CH ₃ (CH ₂) ₁₄ COONa	5%	.....	.....
Sodium Perborate			
NaBO ₃ · 4H ₂ O		73	23
Sodium Perchlorate			
NaClO ₄		140	60
Sodium Peroxide			
Na ₂ O ₂	10%	140	60
Sodium Phosphate	ACID	140	60
NaH ₂ PO ₄	ALKALINE	140	60
	NEUTRAL	140	60
Sodium Silicate		140	60
2Na ₂ O · SiO ₂	10%	....
	50%	....
Sodium Sulfate	SATURATED	140	60
Na ₂ SO ₄	0.10%	.....
Sodium Sulfide			
Na ₂ S	SATURATED	140	60
Sodium Sulfite			
Na ₂ SO ₃	SATURATED	140	60
Sodium Thiosulfate		140	60
Na ₂ S ₂ O ₃ · 5H ₂ O	50%	....
SOUR CRUDE OIL		.....
SOYBEAN OIL		140	60
Stannic Chloride			
SnCl ₄	SATURATED	140	60
Stannous Chloride	15%	140	60
SnCl ₂	SATURATED	140	60
STARCH		140	60
STARCH SOLUTION		140	60
Stearic Acid		120	49
CH ₃ (CH ₂) ₁₆ COOH	100%	120	49
STODDARD'S SOLVENT		73	23
Styrene			
C ₆ H ₅ CH=CH ₂		120	49
Succinic Acid			
COOH(CH ₂) ₂ COOH		140	60
Sugar			
C ₆ H ₁₂ O ₆	ACUOSA	140	60

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
Sulfamic Acid			
HSO ₃ NH ₂	20%	.....	.....
Sulfate Liquors (Oil)	6%	.....	.....
Sulfite Liquors (Oil)	6%	140	60
Sulfur			
S		140	60
Sulfur Chloride			
S ₂ Cl ₂		.....	.....
Sulfur Dioxide	GAS DRY	140	60
SO ₂	GAS WET	120	49
Sulfur Trioxide	GAS DRY		
SO ₃	GAS		
Sulfuric Acid	5%	.....	.....
H ₂ SO ₄	30%	140	60
	50%	120	49
	60%	120	49
	70%	120	49
	80%	120	60
	90%	120	49
	93%	73	23
	94% - 98%	73	23
	100%	73	23
Sulfurous Acid			
H ₂ SO ₃		140	60
TALL OIL		120	49
Tannic Acid	10%	140	60
C ₇ H ₅ O ₄	SATURATED	.....	.....
TANNING LIQUORS		120	49
TAR		.....	.....
Tartaric Acid		140	60
HOOC(CHOH) ₂ COOH	SATURATED	.....	.....
Terpineol			
C ₁₀ H ₁₇ OH		.....	.....
Tetrachloroethane			
CHCl ₂ CHCl ₂		120	49
Tetrachloroethylene			
Cl ₂ C=CCl ₂		120	49
Tetraethyl Lead			
Pb(C ₂ H ₅) ₄		.....	.....
Tetrahydrofuran			
C ₄ H ₈ O		73	23
Tetralin			
C ₁₀ H ₁₂			

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
Tetra Sodium Pyrophosphate			
Na ₄ P ₂ O ₇ ·10H ₂ O		.....	.....
Thionyl Chloride			
SOCl ₂			
Thread Cutting Oils		.....	.....
Tin (II) Chloride			
SnCl ₂		.....	.....
Tin (IV) Chloride			
SnCl ₂		.....	.....
Titanium Tetrachloride			
TiCl ₄		120	49
Toluene (Toluol)			
CH ₃ C ₆ H ₅		120	49
TOMATO JUICE		140	60
TRANSFORMER OIL		120	49
TRANSFORMER OIL DTE/30		120	49
Tributyl Citrate			
C ₁₈ H ₃₂ O ₇		120	49
Tributyl Phosphate			
(C ₄ H ₉) ₃ PO ₄		73	23
Trichloroacetic Acid	50%	140	60
CCl ₃ COOH	10%	140	60
Trichlorobenzene			
C ₆ H ₃ Cl ₃		.....	.....
Trichloroethane			
C ₂ H ₃ Cl ₃		.....	.....
Trichloroethylene			
CHCl=CCl ₂		120	49
Triethanolamine			
(HOCH ₂ CH ₂) ₃ N		73	23
Triethylamine			
(C ₂ H ₅) ₃ N		73	23
Trimethylolpropane			
(CH ₂ OH) ₃ C ₃ H ₅		120	49
Trisodium Phosphate			
Na ₃ PO ₄ · 12H ₂ O		140	60
TURPENTINE		120	49
Urea		140	60
CO(NH ₂) ₂	10%	.....	.....
	SATURATED	.....	.....
URINE		140	60
VASELINE (PETROLEUM JELLY)		120	49
VEGETABLE OIL		140	60

SUSTANCIA / FORMULA	CONCENTRACION	°F	°C
VINEGAR		140	60
Vinyl Acetate			
CH ₃ COOCH=CH ₂		140	60
Water, Acid Mine			
H ₂ O		140	60
Water, Deionized			
H ₂ O		140	60
Water, Distilled			
H ₂ O		140	60
Water, Potable			
H ₂ O		140	60
Water, Salt			
H ₂ O		140	60
Water, Sea			
H ₂ O		140	60
Water, Soft			
H ₂ O		140	60
Water, Waste			
H ₂ O			
WHISKEY		140	60
WINE		140	60
WINES AND SPIRITS		.....	.....
Xylene (Xylol)			
C ₆ H ₄ (CH ₃) ₂			
Zinc Acetate			
Zn(CH ₃ COO) ₂ o2H ₂ O		.....	.....
Zinc Carbonate			
ZnCO ₃		140	60
Zinc Chloride		140	60
ZnCl ₂	50%	.....	.....
	SATURATED	.....	.....
Zinc Nitrate		140	60
Zn(NO ₃) ₂ o6H ₂ O	SATURATED	.....	.....
Zinc Oxide			
ZnO		.....	.....
Zinc Stearate			
(CH ₃ (CH ₂) ₁₆ COO) ₂ Zn		.....	.....
Zinc Sulfate		140	60
ZnSO ₄ o7H ₂ O	SATURATED	.....