

Sludge Test Data Sheet

<u>LIQUIDS</u>	DENSITY (g/cm ³)	Boiling Pt (°C)	FLAMMABLE	ODOR	DISSOLVES SUGAR
Water	1.00	100	no	none	yes
Ethanol	0.82	78	yes	strong	no
Methanol	0.79	65	yes	slight sweet	no
Isopropyl	0.83	81	yes	strong	no

SOLUBLE SALTS

	Flame Test
Sodium Chloride	yellow/orange
Potassium Chloride	purple/pink
Cobalt Chloride	Sparkling silver

SOLUBLE SALTS

	Flame Test
Lithium Chloride	Red/Fusha
Copper Chloride	Blue/Green
Borax	Yellow

INSOLUBLE POWDERS







	Acid Test
Calcium Carbonate	Yes
Calcium Fluoride	No

INSOLUBLE SOLID

REACTS WITH ACID	DENSITY (g/cm ³)	COLOR	ADDITIONAL INFORMATION
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Metals

Lead	no	11.3	black	Very soft, leaves dark streak on paper, not magnetic, will not rust in water
Copper	no	8.9	orange	Can be scratched with metal, not magnetic, malleable, will not rust, will turn a flame green if heated 30 seconds.
Iron	slightly	7.9	black/silver	Rust in contact with water, magnetic
Tin	no	7.3	shiny silver	Not magnetic, malleable, shiny, will not rust.
Zinc	slightly	7.1	dull silver	Not magnetic, becomes dull, malleable, will not rust in water
Aluminum	slightly	2.7	silver	Not magnetic, malleable, will not rust in water
Steel	slightly	7.6	silver	Metal alloy, magnetic, malleable, shiny, rusts in water

<u>INSOLUBLE SOLID</u>	REACTS WITH ACID	DENSITY (g/cm ³)	COLOR	ADDITIONAL INFORMATION
Silicon	no	2.3	shiny gray	Metalloid, will not rust in water, not magnetic,
Glass	no	2.3	clear	Melts at only high temps, scratches glass.
Plastic	no	0.5 - 1.4	varies	Slightly flammable, will not scratch glass, melts
 PETE		1.3-1.4		Soda & Water containers, waterproof packages
 HDPE		0.95		Milk, detergent & oil bottles, toys and plastic bags.
 PVC		1.39-1.42		Water pipes, hard, rigid, white in color usually.
 LDPE		0.92		Many plastic bags, shrink wrap, garment bags
 PP		0.90-0.92		Refrigerated containers, some bags, most bottle tops.
 PS		1.04-1.10		Throwaway utensils, meat packing, protective packing.
Acrylic		1.16-1.19		Appears like glass.
Wax	no	0.85	varies	Usually floats in water and sinks in alcohol, melts, will not scratch glass, marks paper.
Pumice	no	0.85	whitish	Usually floats in water, won't melt.
Quartz chips	no	2.65	varies	Can be in crystal form, also found in granite rock
Limestone or limestone chips	yes	1.1 - 3	gray – white	Made from living organisms like sea shells and coral , density varies on how the limestone rock was formed
Rock	no	varies	varies	Name as :Igneous , metamorphic, sedimentary. Use references!
Seeds	no	varies	varies	Specific Names: Pop corn, black beans, pinto beans, corn, peas- research is required to figure out appropriate name.
Wood (Popular, oak, pine)	no	0.35-0.9	varies	See chart in classroom for exact name, or internet.
Silicone/Rubber	no	0.968-2.8	varies	Silicone is white and soft, easy to bend. Rubber is harder and bounces when dropped