

# Chemical Compatibility Guide

## Guide Applicable to the Following:

PIG Open-Top Chemical Storage Tanks, PIG Chemical Storage Tanks, PIG Double-Wall Chemical Storage Tanks, PIG Double-Wall Square Chemical Storage Tanks, PIG Tank Spill Containment Sump with Grate.

## Guide Information:

This report is offered as a guide and was developed from information which, to the best of New Pig's knowledge, was reliable and accurate. Due to variables and conditions of application beyond New Pig's control, none of the data shown in this guide is to be construed as a guarantee, expressed or implied. New Pig assumes no responsibility, obligation, or liability in conjunction with the use or misuse of the information.

This listing was prepared to provide guidance to the chemical compatibility of New Pig Corporation containment pallets and decks, containers and other polyethylene products.

## Ratings / Key or Ratings – Chemical Effect

**L (Long-term storage):** No visible degradation to material

**S (Short-term storage):** Moderate degradation to material

**N (Not recommended):** Significant degradation to material

Due to variables and conditions beyond our control, New Pig cannot guarantee that this product(s) will work to your satisfaction. To ensure effectiveness and your safety, we recommend that you conduct compatibility and absorption testing of your chemicals with this product prior to purchase. For additional questions or information, contact New Pig.

Chemical Name	CONC	70°F	140°F
Acetic Acid*	60%	L	L
Acetic Acid*	80%	L	S
Aluminum Chloride		L	L
Aluminum Sulphate		L	L
Alums	all types	L	L
Ammonium Carbonate		L	L
Ammonium Chloride	sat'd	L	L
Ammonium Fluoride	sat'd	L	L
Ammonium Hydroxide	28%	L	L
Ammonium Nitrate	sat'd	L	L
Ammonium Sulphate	sat'd	L	L
Ammonium Sulfide	sat'd	L	L
Arsenic Acid		L	L
Ascorbic Acid	10%	L	L
Barium Salts		L	L
Beer		L	L
Benzoic Acid		L	L
Biodiesel	B80	L	S
Bleach Lye	10%	L	L
Borax	sat'd	L	L
Boric Acid		L	L
Brine		L	L
Calcium Carbonate	sat'd	L	L
Calcium Chlorate	sat'd	L	L
Calcium Chloride	sat'd	L	L
Calcium Hydroxide	conc.	L	L
Calcium Hypochlorite	bleach sol'n	L	L
Calcium Nitrate	50%	L	L
Castor Oil	conc.	L	L

Chemical Name	CONC	70°F	140°F
Chlorine Dioxide		S	S
Chlorine Water	2% sat'd sol.	L	L
Chromic Acid	50%	L	S
Chromic Acid	10%	L	L
Citric Acid*	sat'd	L	L
Cola Concentrates*		L	L
Copper Chloride	sat'd	L	L
Copper Cyanide	sat'd	L	L
Copper Nitrate	sat'd	L	L
Copper Sulphate	sat'd	L	L
Corn Oil*		L	L
Cottonseed Oil*		L	L
Cyclohexylamine		L	L
DEAE – diethyl amino ethanol		L	L
Deionized Water	5 Megohm	L	L
Detergents, Synthetic*		L	L
Developers, Photographic		L	L
Emulsions, Photographic*		L	L
Ethyl Acetate*#	100%	S	N
Ethyl Alcohol*	100%	L	L
Ethyl Alcohol*	35%	L	L
Ethylene Glycol*		L	L
Ferric Chloride	sat'd	L	L
Ferrous Chloride	sat'd	S	L
Ferrous Sulphate	20%	L	L
Fish Solubles*		S	L
Fluosillic Acid	conc.	S	S
Formic Acid		L	L
Fructose	sat'd	L	L



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Chemical Name	CONC	70°F	140°F
Glycerine*		L	L
Glycol*		L	L
Hydrochloric Acid	0-48%	L	L
Hydrofluoric Acid*	60%	L	L
Hydrofluosilicic Acid	0-26%	L	L
Hydrogen Peroxide	0-50%	L	S
Hydrogen Sulphide		L	L
Hypochlorous Acid	conc.	L	L
Inks #		L	L
Isopropyl Alcohol	100%	L	S
Lactic Acid*	20%	L	L
Lime		L	L
Magnesium Chloride	sat'd	L	L
Magnesium Hydroxide	sat'd	L	L
Methyl Alcohol*	100%	L	L
Milk		L	L
Molasses		L	L
Morpholine		L	-
Motor Oil		L	L
Nickel Chloride	conc.	L	L
Nitric Acid	0-30%	L	L
Nitric Acid +	30-50%	L	S
Nitric Acid +	70%	N	N
Phosphoric Acid	0-85%	L	L
Photographic Solutions		L	L
Plating Solutions*		L	L
Cadium		L	L
Chromium		L	L
Copper		L	L
Gold		L	L
Indium		L	L
Lead		L	L
Nickel		L	L
Rhodium		L	L
Silver		L	L
Tin		L	L
Zinc		L	L
Potassium Bromide	conc.	L	L
Potassium Carbonate	50%	L	L
Potassium Chlorate	conc.	L	L
Potassium Chloride	conc.	L	L
Potassium Cyanide	conc.	L	L

Chemical Name	CONC	70°F	140°F
Potassium Fluoride	conc.	L	L
Potassium Hydroxide	conc.	L	L
Potassium Nitrate	conc.	L	L
Potassium Sulfate	conc.	L	L
Potassium Sulphide	conc.	L	L
Potassium Sulfite	conc.	L	L
Sallyclic Acid	sat'd	L	L
Sea Water		L	L
Silver Nitrate Solution		L	L
Soap Solution*		L	L
Sodium Bisulphate	sat'd	L	L
Sodium Bisulphite	sat'd	L	L
Sodium Bromide	dilute	L	L
Sodium Carbonate	conc.	L	L
Sodium Chlorate	sat'd	L	L
Sodium Chloride	sat'd	L	L
Sodium Cyanide		L	L
Sodium Fluoride	sat'd	L	L
Sodium Hydroxide	0-50%	L	L
Sodium Hypochlorite +	< 16.5%	L	S
Sodium Nitrate		L	L
Sodium Sulphate		L	L
Sodium Sulphide	sat'd	L	L
Sodium Sulphite	sat'd	L	L
Sodium Thiosulfate	40%	L	L
Starch Solution*	sat'd	L	L
Sulphuric Acid	0-50%	L	L
Sulphuric Acid +	70%	L	S
Sulphuric Acid +	80%	S	S
Sulphuric Acid +	96%	S	S
Sulphuric Acid +	98-conc.	S	N
Tannic Acid*	sat'd	L	L
Triethylene Glycol*		L	L
Urea	30%	L	L
Urine		L	L
Vanilla Extract*		L	L
Vinegar		L	L
Water w/ozone	up to 10ppm	L	L
Wetting Agent*		L	L
Wines*		L	L
Zinc Salts		L	L

# **Plasticizer** – Certain types of chemicals are absorbed to varying degrees by polyethylene causing swelling, weight-gain, softening and some loss of yield strength. These plasticizing materials cause no actual chemical degradation of the resin. Several of these chemicals have a strong plasticizing effect (e.g. aromatic hydrocarbons benzene), whereas others have weaker effects (e.g. gasoline). Certain plasticizers are sufficiently volatile that if they are removed from contact with the polyethylene, the part will “dry” out and return to its original condition with no loss of properties.

+ **Oxidizers** – Oxidizers are the only group of materials capable of chemically degrading polyethylene. The effects on the polyethylene may be gradual even for strong oxidizers and short-term effects may not be measurable. However, if continuous long-term exposure is intended, the chemical effects should be checked regularly.

\***Stress Crack Agent** – Certain surface active materials, although they have no chemical effect on the tank material, can accelerate the cracking of plastic materials when they are under stress. Although our tanks are generally stress-free, caution should be used when large tanks are unsupported and when welded fittings are used with these chemicals.



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Page 2 of 2