AdvantaPure® Material & Regulatory Summary

	AdvantaFlex	APST	APSH/APSW	LIM Silicone	APHP
Allergen Free	Y	Y	Y	Y	Y
Animal Derived Ingredient Free	Y	Y	Y	Y	Y
Antibiotic Free	Y	Y	Y	Y	Y
Antioxidant Free	N	Y	Y	Y	Y
Benzoic Acid and Benzoate Free	Y	Y	Y	Y	Y
Bisphenol A (BPA) Free	Y	Y	Y	Y	Y
Conflict Mineral Free (U.S. Dodd-Frank Act)	Y	Y	Y	Y	Y
Dimethyl Fumarate (DMF) Free	Y	Y	Y	Y	Y
European Pharmacopeia	EP 3.2.9	EP 3.1.9	EP 3.1.9	EP 3.1.9	EP 3.1.9
FDA	21 CFR 177.2600 (passes the water extraction portion of the test)	21 CFR177.2600	21 CFR 177.2600	21 CFR 177.2600	21 CFR 177.2600
Flame Retardant Free, Brominated and Non-Brominated	Y	Y	Y	Y	Y
Genetically Modified Organisms (GMOs) Free	Y	Y	Y	Y	Y
ISO 10993	10993-4, 10993-5, 10993-10, 10993-11	10993-3, 10993-4, 10993-10, 10993-11	10993-3, 10993-4, 10993-5, 10993-6, 10993-10, 10993-11	10993-4, 10993-5, 10993-10, 10993-11	10993-5, 10993-10, 10993-11
Latex Free	Y	Y	Y	Y	Y
Melamine Free	Y	Y	Y	Y	Y
Mercury Free	Y	Y	Y	Y	Y
N-Nitroso Compounds Free	Y	Y	Y	Y	Y
PCBs Free	Y	Y	Y	Y	Y
Persistent Organic Pollutants (POPs) Free [2019/1021/EU]	Y	Y	Y	Y	Y
Per- and polyfluoroalkyl substances (PFAS) Free	Y	Y	Y	Y	Y
Phenol Free	Y	Y	Y	Y	Y
Phthalate Free	Y	Y	Y	Y	Y
Plant Derived Ingredient Free	Y	Y	Y	Y	Y
Plasticizer Free, Non-Phthalate based	N	Y	Y	Y	Y
PVC Free	Y	Y	Y	Y	Y
REACH Compliant (EC) 1907/2006	Y	*	*	*	*
ROHS Compliant [2015/863/EU]	Y	Y	Y	Y	Y
Tris (aziridinyl) phosphinoxide Free	Y	Y	Y	Y	Y
TCSA Section 6(h) PBT Chemicals Free [EPA Toxic Substances Control Act]	Y	Y	Y	Y	Y
USP	87, 88 (Class VI), 381, 661, 788	87, 88 (Class VI), 381, 661, 788	87, 88 (Class VI), 381, 661, 788	87, 88 (Class VI), 381, 661, 788	87, 88 (Class VI), 381, 661, 788

Key		
Free – this substance is not used in the raw material formulation or in the manufacturing process for the finished product	Y – Yes, Compliant	N – No, Not Compliant

*** REACH Note - Contains one or more of the following SVHCs: Octamethylcyclotetrasiloxane (D4), Decamethylcyclopentasiloxane (D5), Dodecamethylcyclohexasiloxane (D6). Compliance is conditional based upon the amount of material imported into the EU, per the annual limit of SVHCs.**

Chemical Compatibility Chart

Chemical	AdvantaFlex	APST: NI-201	APSH/APSW: NI-202	APSPH: NI-205	LIM Silicone Compound: NI-206	APHP: NI-210	APLT: NI-211	APLT LIM: NI-212
Acetic acid	B	B	B	B	B	B	B	B
Acetone	D	B	B	B	B	B	B	B
Acetonitrile	D	D	D	D	D	D	D	D
Acrylonitrile	X	D	D	D	D	D	D	D
Ammonium Sulfide	B	A	A	A	A	A	A	A
Benzene	D	D	D	D	D	D	D	D
Bleach	A	B	B	B	B	B	B	B
Boric Acid	B	A	A	A	A	A	A	A
Carbonic Acid	D	A	A	A	A	A	A	A
Chlorobenzene	D	D	D	D	D	D	D	D
Chloroform	D	D	D	D	D	D	D	D
Dichloromethane (DCM)	D	D	D	D	D	D	D	D
Diethylamine	X	B	B	B	B	B	B	B
Dimethyl Formamide (DMF)	C	B	B	B	B	B	B	B
Dimethyl Sulfoxide (DMSO)	X	D	D	D	D	D	D	D
Dioxane	X	D	D	D	D	D	D	D
Ether	D	D	D	D	D	D	D	D
Ethyl Acetate	D	C	C	C	C	C	C	C
Ethyl Alcohol	B	B	B	B	B	B	B	B
Ethylene Glycol	B	A	A	A	A	A	A	A
Formaldehyde	A	B	B	B	B	B	B	B
Formic Acid 50%	B	C	C	C	C	C	C	C
Gasoline	D	D	D	D	D	D	D	D
Glycerine	B	B	B	B	B	B	B	B
Heptane	C	D	D	D	D	D	D	D
Hexane	B	D	D	D	D	D	D	D
Hydrochloric Acid (HCL) 50%	B	D	D	D	D	D	D	D
Hydrofluoric Acid (HF) 50%	A	D	D	D	D	D	D	D
Hydrogen Peroxide 50%	B	B	B	B	B	B	B	B
Iodine	D	A	A	A	A	A	A	A
Isopropyl Alcohol	B	A	A	A	A	A	A	A
Methyl Alcohol	A	A	A	A	A	A	A	A
Methyl Ethyl Ketone (MEK)	B	D	D	D	D	D	D	D
Methylene Chloride	D	D	D	D	D	D	D	D
Nitric Acid 50%	B	D	D	D	D	D	D	D
Pentane	B	D	D	D	D	D	D	D
Perchloric Acid 50%	A	D	D	D	D	D	D	D
Phenol 50%	D	D	D	D	D	D	D	D
Phosphoric Acid 50%	A	D	D	D	D	D	D	D
Picric Acid	D	D	D	D	D	D	D	D
Potassium Hydroxide	A	C	C	C	C	C	C	C
Sodium Hydroxide 50%	C	B	B	B	B	B	B	B
Sodium Peroxide	A	D	D	D	D	D	D	D
Sodium Thiosulfate	X	A	A	A	A	A	A	A
Sulfuric Acid 50%	A	D	D	D	D	D	D	D
Tetrahydrofuran (THF)	D	D	D	D	D	D	D	D
Toluene	D	D	D	D	D	D	D	D
Trifluoroacetic Acid (TFA) 50%	X	D	D	D	D	D	D	D
Xylene	D	D	D	D	D	D	D	D

Additional Compatibility data is available upon request should it not be available on this chart. This chart is based on commonly used industry chemicals

Ratings Key

A = Excellent no swelling
B = Good compatibility, small swelling <10%
C = Adequate swelling < 25%
D = Inadequate swelling > 25%
X = No data available

All ratings are based on room temperature of 70F (21C), and chemical resistance may be affected by elevated temperatures.

This Chemical Compatibility Chart is a general guide that belongs to NewAge® Industries AdvantaPure products. There are many factors that can affect the chemical compatibility of a product, therefore, it is the user's responsibility to test under their own conditions. Chemicals can affect the strength, surface appearance, color, flexibility, weight, and dimensions of a product. The basic modes of interaction that can cause changes can be:

1. Chemical attach on the polymer chain, with can result in physical properties, including oxidation; reaction of functional groups in or on the chain and depolymerization.

2. Product physical changes, including absorption of solvents, resulting in softening, and swelling of the plastic, permeation of solvent through the product, dissolution in a solvent.

3. Stress Cracking from the interaction with internal and/or external stresses. It is recommended to perform an immersion test before choosing tube material for critical applications.

Note: This Chemical Compatibility Chart contains recommendations for combinations of elastomeric materials in contact with various corrodents and other environmental conditions. All results are believed to be based on valid laboratory, field tests, or experience. It is the user's responsibility to ensure the suitability and safety of NewAge Industries AdvantaPure products for all intended uses. The user is responsible for any required testing. Any data supplied by NewAge Industries AdvantaPure is provided as a helpful guideline and is believed to be reliable; however, nothing stated shall constitute a guarantee, recommendation, or warranty for any application. All advice is given and accepted at the user's risk.