

TPU CHEMICAL RESISTANCE GUIDE (courtesy AFC)

The information contained in the Chemical Resistance Guide has been compiled from various literature references and sources. It may be considered as a basis for chemical resistance but not as a guarantee. It is strongly advised that specific Ocean Management Systems, Inc. products be tested under actual service conditions to determine suitability. Ocean Management Systems, Inc. can provide samples for chemical resistance testing available upon request. Note: All OMS BC's are manufactured from Nylon fabric and then coated with TPU (Thermoplastic Polyurethane)

Ocean Management System, Inc. (OMS)

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Chemical Resistance Guide

OCEAN MANAGEMENT
SYSTEMS, INC.

Jacket Material Key

PVC = POLYVINYL CHLORIDE

TPR = THERMOPLASTIC ELASTOMER

TPU = THERMOPLASTIC POLYURETHANE

Rating Key

E = RESISTANT: GOOD FOR CONTINUOUS EXPOSURE

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Chemical	Jacket Material			
	%	PV C	TP R	TP U
A				
ASTM Fuel A		F	G	G
ASTM Fuel B		X	F	F
ASTM Fuel C			F	F
ASTM Oil No. 1		G	G	G
ASTM Oil No. 2				G
ASTM Oil No. 3		F		G
Acetaldehyde				
Acetamide				
Acetate Solvents		X		
Acetic Acid (Glacial)		F		G
Acetic Acid	40	G	E	G
Acetic Acid	10	G	E	G
Acetic Anhydride		X		
Acetone		X		X
Acetyl Bromide				
Acetyl Chloride				
Acetylene				
Acrylonitrile		E	E	
Adipic Acid				
Alcohols				
Alcohols (Aliphatic)		F		
Alkalies		E		
Allyl Alcohol				
Aluminum Salts		E		
Aluminum Chloride		E		G
Aluminum Sulfate (Alums)		E		
Aluminum Sulfide				
Alums				
Ammonia				G
Ammonia (Dry Gas)		E		G
Ammonia (Anhydrous Liquids)		X		
Ammonia (Aqueous)		E		
Ammoniated Latex		E		
Ammonium Acetate				
Ammonium Carbonate				
Ammonium Chloride		E		G
Ammonium Chloride	10	E		
Ammonium Hydroxide		E		
Ammonium Nitrate				
Ammonium Persulfate				
Ammonium Salts				
Ammonium Sulfate				
Ammonium Sulfide				
Ammonium Thiocyanide				
Amyl Acetate		X		
Amyl Alcohol				

Chemical	Jacket Material			
	%	PV C	TP R	TP U
A				
Amyl Chloride				
Aniline			E	X
Aniline Hydrochloride				
Aniline Oils		X		
Animal Fats & Oils		E		
Aniseed Oil				
Anthracene		X		
Antifreeze Compounds	50/ 50		E	
Antimony Salts				
Aqua Regia				
Aromatic Fuels		X		
Aromatic Hydrocarbons		X		
Arsenic Salts				
Asphalt		X		
Attar of Roses				
B				
Banana Oil		X		
Barium Carbonate				
Barium Chloride		E		
Barium Hydroxide		E		
Barium Salts				
Barium Sulfide		E		
Battery Acid				
Benzaldehyde				
Benzaldehyde				
Benzene		X	X	X
Benzine (Petroleum Ether)		F		
Benzoic Acid				
Benzole				
Benzyl				X
Bitumen				
Borax		E		
Bordeaux Mixture		E		
Boric Acid		E		G
Brake Fluid			E	
Brake Fluid A				X
Brine		E		
Bromine		X	x	
Bromobenzene			x	
Bunker Oil				
Butane				G
Butanol				
Butyl Acetate		X	E	X
Butyl Alcohol		G		X
Butylene Glycol				
Butyric Acid				



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	Jacket Material			
	%	PV C	TP R	TP U
C				
Calcium Carbonate				
Calcium Chloride	20	E	E	G
Calcium Chloride	10	E	E	G
Calcium Hydroxide		E		
Calcium Hypochlorite		E		
Calcium Nitrate				
Calcium Sulfate				
Camphor				
Carbolic Acid (Phenol)		G		
Carbon Dioxide		E		
Carbon Disulfide		X		
Carbon Tetrachloride		X		X
Carbonic Acid		E		
Casein		E		
Castor Oil		E		
Catechol				
Caustic Soda		E		E
Cello-Solv		X		
Chlorinated Hydrocarbons		X		
Chlorinated Lime				
Chlorine				X
Chlorine (water solution)	40	F		G
Chlorine Gas (dry & wet)		X		
Chloroacetic Acid				
Chlorobenzene		X		X
Chlorobromomethane				
Chloroform		X		X
Chrome Baths				
Chromic Acid	40	F		X
Chromic Acid	10	G		
Chromic Acid	1	E		
Chromium Potassium Sulfate				
Chromium Salts				
Citric Acid		E		
Coal Tar		X		
Coconut Oil		F		
Copper Salts				
Corn Oil		E		
Cottonseed Oil		F		
Creosote		X		
Cresol		F		
Cresylic Acid		X		
Cupric Chloride				
Cupric Nitrate				
Cupric Sulfate				
Cyclohexane		G	X	X

Chemical	Jacket Material			
	%	PV C	TP R	TP U
C				
Cyclohexanol				
Cyclohexanone		G		
D				
DDT Weed Killer		E		
DOP				
DTE Oil				
Decalin				
Degreasing Fluids		X		
Detergents (dish washing)		E	E	
Di Iso Cyante		F		
Di Methyl Formamide		X		
Di Methyl Hydrazine		X		
Di-isodecyl Phthalate		X		
Dibutyl Ether				
Dibutyl Phthalate		X		
Dichlorobenzene				
Dichloroethylene		X		
Diesel Fuel		X		G
Diesel Oils		F		
Diester Oil				
Diethyl Ether		E	E	
Diethylene Glycol		G		
Dimethyl Acetamide				
Dimethyl Formamide			E	
Diocetyl Phthalate (DOP)		X	E	E
Dioxane			E	
Dodecyl Mercaptan				
Dow General Weed Killer (H20)		G		
Dow General Weed Killer (Phenol)		X		
Dowtherm				
E				
Edible Fats and Oils				
Esters		X		
Ether		X		X
Ethyl Acetate		X		X
Ethyl Alcohol (Ethanol)		F	E	X
Ethyl Bromide				
Ethyl Chloride				
Ethylene Chloride				G
Ethylene Dichloride		X		
Ethylene Glycol	50	G		G
Ethylene Oxide		X		
F				
Fatty Acids		E		
Ferric Chloride		E		G
Ferric Nitrate				



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	%	PV C	TP R	TP U
F				
Ferric Sulfate		E		
Ferrous Chloride		E		
Ferrous Sulfate		E		
Flourochlorohydrocarbons				
Formaldehyde	40	X		
Formalin				
Formamide				
Formic Acid	85			X
Formic Acid	40			X
Formic Acid	10	E		X
Freon			F	X
Freon 12				X
Freons		X		
Fuel Oil		G		
Furfural		F		
G				
Gallic Acid		E		
Gasoline - 100 Octane		F		X
Glycerine		E	E	E
Glycol				E
Glycolic Acid				
Grease		E	G	E
Green Sulfate Liquor		E		
H				
Heptachlor in Petroleum Solvents		E		
Heptane		F		G
Hexane		F	G	G
Hydraulic Fluids - Ester Base		X		
Hydraulic Fluids - Petroleum Base		F		
Hdrazine				
Hydrobromic Acid		E		
Hydrocarbon Oil				
Hydrochloric Acid (Muriatic)	40	F		
Hydrochloric Acid	10	G	E	
Hydrochloric Acid	1	E	E	
Hydrocyanic Acid				
Hydrofluoric Acid	70	X		
Hydrofluoric Acid	10			
Hydrofluoroboric Acid	40	F		
Hydrofluoroboric Acid	10	G		
Hydrogen				
Hydrogen Chloride				G
Hydrogen Chloride				G
Hydrogen Fluoride				
Hydrogen Peroxide	30	G		
Hydrogen Peroxide	10	E		

Chemical	Jacket Material			
	%	PV C	TP R	TP U
H				
Hydrogen Peroxide	2	E		E
Hydrogen Sulfide				
Hydrolic Fluid				G
Hydroiodic Acid				
I				
Ink				
Iodine Solution				X
Iron Salts - Acid Soln.				
Iron Salts - Neut. Soln.				
Isooctane		F		
Isopropanal				
Isopropyl Acetate		X		
Isopropyl Alcohol		G		X
J				
JP-4 Oil				
Jet Fuels (JP-3,4, and 5)		F		
K				
Kerosene		F		G
Ketones		X		
L				
Lacquer Thinners		X		
Lactic Acid	90			F
Lactic Acid	50			F
Lactic Acid	5			F
Lanolin				
Lead Acetate				
Lead Salts				
Linseed Oil		E		
Lox				
Lubricating Oils, Greases, Soaps		E		
M				
MIL-D-5606 Oil				
MIL-L-7808 Oil				
Magnesium Chloride		E		G
Magnesium Hydroxide	10	E		
Magnesium Salts				
Magnesium Sulfate		E		
Malathion 50 in Aromatics		X		
Malic Acid		E		
Mercury				
Mercury Salts				
Methanol	10			X
Methyl Acetate		X		X
Methyl Alcohol		F		
Methyl Bromide		X		
Methylene Chloride		X		X



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	%	PV C	TP R	TP U
M				
Methyl Ethyl Ketone		X	E	X
Methyl Glycol				X
Methyl Isobutyl Ketone		X		
Mineral Oil		E		G
Monochlorobenzene		X		
Motor Fuels				
Motor Oil 20W				G
Muriatic Acid (See Hydrochloric Acid)				
N				
Naphtha		F		E
Naphthalene		X		
Natural Gas				
Nickel Salts				
Nitric Acid		X		X
Nitric Acid	70	F		X
Nitric Acid	35	G		X
Nitric Acid	10	E		X
Nitrobenzene		X	E	
Nitrogen				
Nitromethane				
Nitropropane		X		
N-Methyl Pyrrolidone				X
O				
Octane				
Oil of Turpentine				
Oleic Acid		E		
Oleum		X		
Oxalic Acid		E		
Oxygen				
Oxygen - Liquid				
Ozone				
P				
Paint		X		
Paint Thinners		X		
Palmitic Acid		E		
Paper Chemicals				
Paraffin Oil				G
Pentachlorophenol Oil		G		
Pentane		F		
Perchloric Acid	70	X		
Perchloric Acid	10	E		
Perchloroethylene		X		X
Petroleum				G
Petroleum Ether		F		
Petroleum Spirits				
Phenol		G		

	Jacket Material			
	%	PV C	TP R	TP U
P				
Phenyl Ethyl Alcohol				
Phosphoric Acid	85	E		X
Phosphoric Acid	50	E		X
Phosphoric Acid	10	E		X
Photographic Developer				
Phthalates		X		
Pitch		G		
Plasticizers (Phthalates, Phosphates)				
Polyester Resin with Styrene				
Potash				
Potassium Bromide				
Potassium Chlorate				
Potassium Chloride	40			G
Potassium Cyanide				
Potassium Hydroxide	50	E		G
Potassium Hydroxide	10	E	E	G
Potassium Iodide				
Potassium Nitrate				
Potassium Permanganate	5			X
Potassium Salts				
Potassium Sulfate				
Power Steering Fluid		X		
Propane		E		
Propanol			E	
Propyl Alcohol		G		
Propylene Glycol		E		
Pydraul		X		
Pydraul Oil			G	
Pyridine			E	X
R				
Resorcinol				
Ritchfield "A" Weed Killer		F		
S				
SEA No. 10 Oil				
Salicylic Acid				
Salt				
Seawater		E	E	E
Silicic Acid				
Silicone Oil		E		
Silver Nitrate		F		
Silver Salts				
Skydrol Oil - Type B		X	E	X
Soap				
Soap Solution				
Sodium Acetate				
Sodium Bicarbonate				



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	%	PV C	TP R	TP U
S				
Sodium Bisulfite				
Sodium Borate				
Sodium Bromide				
Sodium Carbonate				
Sodium Carbonate				
Sodium Chlorate				
Sodium Chloride	15		E	G
Sodium Chlorite				
Sodium Cyanide		E		
Sodium Dichromate				
Sodium Ferrocyanide				
Sodium Fluoride				
Sodium Hydrosulfite				
Sodium Hydroxide		G		X
Sodium Hydroxide	50	E	E	X
Sodium Hydroxide	10	E	E	G
Sodium Hypochlorite	PH 13	G		E
Sodium Nitrate				
Sodium Nitrate				
Sodium Nitrite				
Sodium Perborate				
Sodium Phosphate				
Sodium Silicate				
Sodium Sulfate				
Sodium Sulfide				
Sodium Sulfite				
Sodium Thiosulfite				
Solvent Naphtha				
Solvesso		X		
Soybean Oil		F		
Stoddard Solvent		X		
Styrene		X		
Sulfur				
Sulfur Dioxide				
Sulfur Dioxide (Liquid)		X		
Sulfuric Acid		X	E	X
Sulfuric Acid	75	F	E	X
Sulfuric Acid	60	G	E	X
Sulfuric Acid	40	E	E	X
Sulfuric Acid	25	E	E	F
Sulfuric Acid	10	E	E	G
Sulfurous Acid	40	G		
T				
Tall Oil		X		
Tallow				
Tannic Acid		E		

Chemical	Jacket Material			
	%	PV C	TP R	TP U
T				
Tar				
Tartaric Acid				
Tea				
Tetra Ethyl Lead		X		
Tetra Hydro Furan		X		X
Tetrachloroethylene				X
Tetraline				
Thionyl Chloride				
Tin Salts				
Titanium Salts				
Toluene		X		X
Toluol		X		
Transformer Oil				
Transmission Oil			F	
Trichlorethane		X		
Trichlorethylene		X	X	X
Trichloroacetic Acid				
Tricresyl Phosphate				
Tricresyl Phosphate (Skydrol)		X		X
Triethanol Amine		F		
Trisodium Phosphate		E		
Tung Oil		F		
Turpentine		F	F	G
U				
Urea				
V				
Varnish				
Varsol		X		
Vaseline				
Vegetable Oils and Juices		E		
Vinegar		E		
Vinyl Chloride		X		
W				
Water		E	E	
Water 23° C				
Water 70° C				
Wax				
Wood Preservatives		X		
X				
Xylene		X	F	X
Xylols		X		
Z				
Zinc Chloride		E	E	
Zinc Sulfate		E		

