

# ***Material Compatibility BULLETIN***

May 18, 2020

Linear fluorescent sockets and acrylic lenses, reflectors and refractors should not be used in environments with exposure to certain chemicals. When used in machining or manufacturing processes, these chemicals can become airborne and reach fixtures indirectly. Chemical exposure to critical components may reduce their reliability, resulting in a possible electrical or mechanical failure of the product.

The data in the tables provided is based on legacy testing of raw plastic material samples done by, and field data compiled by, suppliers and is not intended to be all-inclusive. Using any of the listed sockets and acrylic components in an environment in which chemicals listed as “Not Compatible” may be present will void the warranty for the product containing the components at issue. Other than as expressly set forth herein, Cooper Lighting makes no other representation regarding the listed chemicals or their relationship to our products and expressly disclaims any and all other warranties, whether express or implied, other than those expressly set forth herein and in our terms and conditions of sale respecting our products

If plastic components exhibit signs of damage, including, without limitation, cracking or crazing, the product containing such components must be replaced immediately. Prior to selecting a replacement product, all chemical interactions should be reviewed or tested for the specific application. For further assistance, please contact Pre-Sales Technical Support.

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## Acrylic Components (INCLUDING lenses, reflectors and refractors)

Not Acceptable	
1, 2-dichloroethane	Fluorine
1, 4-dioxane	Formic Acid, 40% or more
1,2,4 Trichlorobenzene	Freon, TF
2, 4-dichlorophenol	Fuel Oil
2,2,4 Trimethylpentane	Gasoline
2-Methoxyethanol	Gluteraldehyde
Acetaldehyde	Hydrazine
Acetic Acid	Hydrochloric Acid, 45%
Acetic Anhydride	Hydrochloric Acid, 48%
Acetone	Hydrogen Peroxide
Acetonitrile	i-Butyl Alcohol
Acrylonitrile	Iodine Crystals
Adipic Acid	Isobutyl Alcohol
Allyl Alcohol	Isopropyl Acetate
Aluminum Hydroxide	Isopropyl Alcohol
Ammonia	Isopropyl Benzene
Aniline	Isopropyl Ether
Aqua regia	Jet Fuel
Benzaldehyde	Lacquer Thinner
Benzene	Malonate
Benzyl Acetate	Methyl Acetate
Benzyl Alcohol	Methyl Alcohol (Methanol)
Bromine	Methyl Ethyl Ketone
Bromobenzene	Methyl Isobutyl Ketone
Bromoform	Methyl Propyl Ketone
Butyl Chloride	Methylene Chloride
Butyric Acid	Methyl-t-Butyl Ether
Calcium Hypochlorite, saturated	Mineral Spirits
Carbazole	n-Amyl Acetate
Carbon Disulfide	n-Butyl Acetate
Carbon Tetrachloride	n-Butyl Alcohol
Cedarwood Oil	n-decane
Cellosolve Acetate	Nitric Acid
Chloroacetic Acid	Nitrobenzene
Chlorobenzene	p-Chloroacetophenone
Chloroform	p-Dichlorobenzene
Chromic Acid, 50%	Perchloroethylene
Cinnamon oil	Phenol, Crystals
Cresol	Phenol, Liquid
Cyclohexane	Phosphoric Acid, 85%
Cyclohexanone	Picric Acid
Cyclopentane	Propionic Acid
Decalin	Propylene Oxide
Diacetone alcohol	Resorcinol
Dibutyl phthalate	Salicylaldehyde
Diethyl Benzene	Salicylic Acid, Powder
Diethyl Ether	Salicylic Acid, saturated
Diethyl Ketone	Sulfur Dioxide, Wet or Dry
Dimethyl Formamide	Sulfuric Acid, 60%
Diocetyl phthalate	Sulfuric Acid, 98%
Dioxane	t-Butyl Alcohol
Ether	Tetrahydrofuran
Ethyl Acetate	Thionyl Chloride
Ethyl Alcohol (Ethanol)	Toluene
Ethyl Benzene	Tributyl Citrate
Ethyl Benzoate	Trichloroacetic Acid
Ethyl Butyrate	Trichloroethane
Ethyl Chloride liquid	Trichloroethylene
Ethyl Cyanoacetate	Turpentine
Ethyl Lactate	Undecyl Alcohol
Ethylene Chloride	Vinylidene Chloride
Fluorides	Xylene

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# Polycarbonate Components (INCLUDING sockets and lenses)

Not Acceptable	
Acetic Anhydride	Ethyl Chloride
Acetone	Ethylene Bromide
Acetyl Chloride (dry)	Ethylene Chloride
Acetylene	Ethylene Chlorohydrin
Acrylonitrile	Ethylene Dichloride
Amines	Ethylene Oxide
Ammonia	Ferrous Chloride
Ammonia (Anhydrous)	Fluorine
Ammonium Hydroxide	Hydrazine
Amyl Acetate	Hydrochloric Acid 35% or Greater
Aniline	Hydrofluoric Acid 20% or Greater
Aniline Hydrochloride	Isopropyl Acetate
Aqua Regia	Isopropyl Ether
Barium Hydroxide	Kerosene
Barium Nitrate	Ketones
Barium Sulfate	Lacquers
Benzaldehyde	Lithium Hydroxide
Benzene	Lye: Ca(OH) <sub>2</sub> Calcium Hydroxide
Benzene Sulfonic Acid	Lye: KOH Potassium Hydroxide
Benzol	Lye: NaOH Sodium Hydroxide
Bromine	Mercury
Butadiene	Methyl Alcohol (Methanol)
Butane	Methyl Butyl Ketone
Butyl Acetate	Methyl Cellosolve
Butyl Amine	Methyl Chloride
Butyl Phthalate	Methyl Ethyl Ketone
Butylene	Methyl Isobutyl Ketone
Butyric Acid	Methyl Isopropyl Ketone
Calcium Bisulfate	Methyl Methacrylate
Calcium Bisulfite	Methylene Chloride
Calcium Carbonate	Mineral Spirits
Calcium Hydroxide	Nickel Nitrate
Calcium Hypochlorite	Nitric Acid
Carbon Disulfide	Nitrobenzene
Carbon Tetrachloride	Nitromethane
Chlorine (Anhydrous Liquid)	Orange Oil
Chlorine (dry)	Ozone >5ppm
Chloroacetic Acid	Perchlorethylene
Chlorobenzene (Mono)	Phenol (Carbolic Acid)
Chloroform	Phosphoric Acid Anhydride
Chlorosulfonic Acid	Phosphorus Trichloride
Chromic Acid 10% or Greater	Potassium Hydroxide (Caustic Potash)
Copper Cyanide	Propane (liquefied)
Copper Nitrate	Pyridine
Cresols	Sodium Hydroxide
Cresylic Acid	Sodium Sulfide
Cyclohexanone	Sodium Thiosulfate (hypo)
Diacetone Alcohol	Sulfur Dioxide
Dichlorobenzene	Sulfuric Acid 35% or greater
Dichloroethane	Tannic Acid
Diethyl ether	Toluene
Diethylamine	Trichloroacetic Acid
Dimethyl Aniline	Trichloroethane
Dimethyl formamide	Turpentine
Dioxane	Urea
Ethyl Acetate	Xylene
Ethyl Benzoate	

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# High Impact Polystyrene Components

Not Acceptable		
1-(4-Chlorophenyl)ethanone, pure	Cyclohexane, pure	Methyl-t-Butyl Ether, pure
1,3-Butadiene, pure	Cyclohexanone, pure	MIBK, pure
1,4-Dioxane, pure	Cyclopentane, pure	Mineral Spirits, pure
1:3 Mixture Of Nitric And Hydrochloric Acids, pure	Decahydronaphthalene, pure	n-Butyl Acetate, pure
1-Phenylethanone, pure	Decalin, pure	n-Decane, pure
2,2'-Oxybispropane, pure	Diacetone, pure	n-Heptane, pure
2-Hydroxy-1,2,3-Propanetricarboxylic Acid Tributyl Ester, pure	Dibutyl Phthalate, pure	Nitrobenzene, pure
2-Hydroxybenzaldehyde, pure	Diethyl Benzene, pure	Nitrohydrochloric Acid, pure
2-Isopropoxypropane, pure	Diethyl Ether, pure	Nitromethane, pure
2-Methoxyethanol, pure	Diethyl Ketone, pure	n-Octane, pure
2-Methoxyethyl Oleate, pure	Diethyl Malonate, pure	Oil, Cedarwood, pure
2-Propanone, pure	Diethylene Dioxide, pure	Oil, Cinnamon, pure
2-Propenenitrile, pure	Diethylene Glycol Monoethyl Ether, pure	Oil, Orange, pure
3-Phenyl-2-propenal, pure	Diisopropyl Ether, pure	Oil, Pine, pure
4'-Chloroacetophenone, pure	Dimethyl Acetamide, pure	Orange Oil, pure
Acetaldehyde, pure	Dimethyl Formamide, pure	Ozone, pure
Acetic Acid Benzyl Ester, pure	Dimethyl Ketone, pure	p-Chloroacetophenone, pure
Acetic Acid Phenylmethyl Ester, pure	Dimethylsulfoxide, pure	p-Dichlorobenzene, pure
Acetic Anhydride, pure	Dioxane, pure	Pentyl acetate, pure
Acetone, pure	DIPE, pure	Perchloroethylene, pure
Acetonitrile, pure	Ether, pure	Petroleum, pure
Acetophenone, pure	Ethyl Acetate, pure	Phenyl Methyl Ketone, pure
Acrylonitrile, pure	Ethyl Benzene, pure	Phenylacrolein, pure
Amyl Chloride, pure	Ethyl Benzoate, pure	Pine Oil, pure
Aniline, pure	Ethyl Butyrate, pure	Propane, pure
Aqua Regia, pure	Ethyl Chloride, pure	Pyridine, pure
Benzaldehyde, pure	Ethyl Lactate, pure	Salicylaldehyde, pure
Benzenamine, pure	Ethylene Chloride, pure	Skydrol LD4 Aviation Hydraulic Fluid, pure
Benzene, pure	Ethylene Glycol Monomethyl Ether, pure	Sulfur Dioxide, pure
Benzol, pure	Ethylene Oxide, pure	Sulfur Salts, pure
Benzyl Acetate, pure	EtO, pure	TCA, pure
Benzyl Alcohol, pure	Freon TF, pure	Tetrahydrofuran, pure
Bromine, pure	Fuel Oil No. 1, pure	THF, pure
Bromoform, pure	Gasoline, pure	Thionyl Chloride, pure
Butadiene, pure	Hexane, pure	Toluene, pure
Butyl Acetate, pure	Hydrazine, pure	Tribromomethane, pure
Butyl Chloride, pure	Isopropyl Acetate, pure	Tributyl Citrate, pure
Butyl Citrate, pure	Isopropyl Benzene, pure	Trichloroacetic Acid, pure
Butyric Acid, pure	Isopropyl Ether, pure	Trichloroethane, pure
Carbon Disulfide, pure	Kerosene, pure	Trichloroethylene, pure
Carbon Tetrachloride, pure	Lacquer Thinner, pure	Tung Oil, pure
Cedarwood Oil, pure	MEK, pure	Tung Oil, pure
Cellosolve® Acetate, pure	Methoxyethyl Oleate, pure	Vinyl Cyanide, pure
Chlorobenzene, pure	Methyl Acetate, pure	White Spirits, pure
Chloroform, pure	Methyl Alcohol, pure	Xylene, pure
Cinnamaldehyde, pure	Methyl Ethyl Ketone, pure	
Cinnamic Aldehyde, pure	Methyl Isobutyl Ketone, pure	
Cinnamon Oil, pure	Methyl Propyl Ketone, pure	
Cresol, pure	Methylene Chloride, pure	
Cyanoethylene, pure	Methyloxirane, pure	

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