



## Butoflex 651

Chemical Product	CAS #	Breakthrough time (minutes)	Permeation level	Standard	Degradation level	Rating
2-Propanol (Isopropanol) 99%	67-63-0	480	6	EN 374-3:2003	4	++
Acetic acid 10%	64-19-7	480	6	EN 374-3:2003	4	++
Acetic acid 50%	64-19-7	480	6	EN 374-3:2003	4	++
Acetic acid 99%	64-19-7	480	6	EN 16523-1:2015	4	++
Acetone 99%	67-64-1	480	6	EN 16523-1:2015	4	++
Acetonitrile 99%	75-05-8	480	6	EN 16523-1:2015	4	++
Acrylic acid 95%	79-10-7	480	6	EN 374-3:2003	4	++
Acrylic acid 99%	79-10-7	480	6	EN 374-3:2003	4	++
Ammonia 99%	7664-41-7	480	6	EN 374-3:2003	NT	NA
Ammonium hydroxide solution 25%	1336-21-6	480	6	EN 16523-1:2015	4	++
Carbon disulfide 99%	75-15-0	1	0	EN 374-3:2003	4	=
Chlorine 100%	7782-50-5	480	6	EN 374-3:2003	NT	NA
Dichloromethane (Methylene Chloride) 99%	75-09-2	12	1	EN 374-3:2003	2	=
Diethylamine 98%	109-89-7	11	1	EN 374-3:2003	2	=
Dimethylformamide 99%	68-12-2	480	6	EN 374-3:2003	4	++
Ethanol 95%	64-17-5	480	6	EN 374-3:2003	4	++
Ethyl acetate 99%	141-78-6	158	4	EN 16523-1:2015	4	++
Ethyl methacrylate 99%	97-63-2	81	3	ASTM F739	NT	NA
Formaldehyde 37%	50-00-0	480	6	EN 16523-1:2015	NT	NA
Formic Acid 100%	64-18-6	NT	NT		4	NA
Formic Acid 96%	64-18-6	NT	NT		4	NA
Hydrochloric acid 10%	7647-01-0	NT	NT		4	NA
Hydrochloric acid 35%	7647-01-0	NT	NT		4	NA
Hydrochloric acid 37%	7647-01-0	NT	NT		4	NA
Hydrofluoric Acid 10%	7664-39-3	480	6	EN 374-3:2003	NT	NA
Hydrofluoric Acid 40%	7664-39-3	480	6	EN 16523-1:2015	NT	NA

\*not normalized result

### OVERALL CHEMICAL PROTECTION RATING

Protection rating is determined by taking into account the effects of both permeation and degradation in an attempt to provide users with an overall protection guideline when using our glove products against specific chemicals.

- Used for **high chemical exposure** or chemical immersion, limited to breakthrough time based on a working day.
- Used for **repeated chemical contact**, limited to total chemical exposure i.e. : accumulative breakthrough time based on a working day.
- **Splash protection only**, on chemical exposure the gloves should be discarded and new gloves worn as soon as possible.
- **Not recommended**, these gloves are deemed unsuitable for work with this chemical.

NT NT: Not tested

NA NA: "Not applicable" because not fully tested (only degradation OR permeation results)

The chemical test data and overall chemical protection rating should not be used as the absolute basis for glove selection. Actual in-use conditions may vary glove performance from the controlled conditions of laboratory tests. Factors other than chemical contact time



## Butoflex 651

Chemical Product	CAS #	Breakthrough time (minutes)	Permeation level	Standard	Degradation level	Rating
Hydrofluoric Acid 49%	7664-39-3	480	6	EN 374-3:2003	NT	NA
Hydrogen bromide 100%	10035-10-6	NT	NT		4	NA
Hydrogen bromide 47%	10035-10-6	NT	NT		4	NA
Hydrogen chloride 99%	7647-01-0	480	6	EN 374-3:2003	NT	NA
Hydrogen fluoride Anhydrous 100% Liq.	7664-39-3	4	0	EN 16523-1:2015	NT	NA
Hydrogen peroxide 30%	7722-84-1	480	6	EN 16523-1:2015	NT	NA
Isobutyl methacrylate 97%	97-86-9	105	3	ASTM F739	NT	NA
Methanol 85%	67-56-1	480	6	EN 374-3:2003	4	++
Methanol 99%	67-56-1	480	6	EN 16523-1:2015	4	++
Methyl acetate 99%	79-20-9	273	4	ASTM F739	NT	NA
Methyl Ethyl Ketone (2-Butanone) 99%	78-93-3	480	6	EN 16523-1:2015	4	++
Methyl methacrylate 95%	80-62-6	NT	NT		4	NA
Methyl methacrylate 99%	80-62-6	89	3	EN 374-3:2003	4	++
n-butyl methacrylate 99%	97-88-1	90	3	ASTM F739	NT	NA
n-Heptane 99%	142-82-5	15	1	EN 374-3:2003	1	-
N-N dimethyl acetamide 30%	127-19-5	480	6	ASTM F739	NT	NA
N-N dimethyl acetamide 99%	127-19-5	480	6	ASTM F739	NT	NA
Naphtha, Hydrotreated Heavy mixture	64742-48-9	45	2	EN 374-3:2003	2	=
Nitric acid 10%	7697-37-2	480	6	EN 374-3:2003	4	++
Nitric acid 20%	7697-37-2	480	6	EN 374-3:2003	4	++
Nitric acid 40%	7697-37-2	480	6	EN 374-3:2003	4	++
Nitric acid 50%	7697-37-2	480	6	EN 374-3:2003	4	++
Nitric acid 65%	7697-37-2	480	6	EN 16523-1:2015	4	++
Nitric acid 68%	7697-37-2	480	6	EN 374-3:2003	4	++
Phosphoric acid 75%	7664-38-2	480	6	EN 374-3:2003	4	++

\*not normalized result

### OVERALL CHEMICAL PROTECTION RATING

Protection rating is determined by taking into account the effects of both permeation and degradation in an attempt to provide users with an overall protection guideline when using our glove products against specific chemicals.

- Used for **high chemical exposure** or chemical immersion, limited to breakthrough time based on a working day.
- Used for **repeated chemical contact**, limited to total chemical exposure i.e. : accumulative breakthrough time based on a working day.
- **Splash protection only**, on chemical exposure the gloves should be discarded and new gloves worn as soon as possible.
- **Not recommended**, these gloves are deemed unsuitable for work with this chemical.

NT: Not tested

NA: "Not applicable" because not fully tested (only degradation OR permeation results)

The chemical test data and overall chemical protection rating should not be used as the absolute basis for glove selection. Actual in-use conditions may vary glove performance from the controlled conditions of laboratory tests. Factors other than chemical contact time

## Butoflex 651

Chemical Product	CAS #	Breakthrough time (minutes)	Permeation level	Standard	Degradation level	Rating
Phosphoric acid 85%	7664-38-2	480	6	EN 374-3:2003	4	++
Sodium hydroxide 20%	1310-73-2	480	6	EN 374-3:2003	4	++
Sodium hydroxide 40%	1310-73-2	480	6	EN 374-3:2003	4	++
Sodium hydroxide 50%	1310-73-2	480	6	EN 374-3:2003	4	++
Styrene 99%	100-42-5	19	1	EN 374-3:2003	2	=
Sulfuric acid 10%	7664-93-9	480	6	EN 374-3:2003	NT	NA
Sulfuric acid 40%	7664-93-9	480	6	EN 374-3:2003	NT	NA
Sulfuric acid 50%	7664-93-9	480	6	EN 374-3:2003	NT	NA
Sulfuric acid 96%	7664-93-9	480	6	EN 16523-1:2015	4	++
Tetrahydrofurane 99%	109-99-9	13	1	EN 374-3:2003	1	-
Toluene 99%	108-88-3	7	0	EN 374-3:2003	1	-
Vinyl acetate 99%	108-05-4	212	4	ASTM F739	NT	NA
Xylene 99%	1330-20-7	10	0	EN 374-3:2003	1	-

\*not normalized result

### OVERALL CHEMICAL PROTECTION RATING

Protection rating is determined by taking into account the effects of both permeation and degradation in an attempt to provide users with an overall protection guideline when using our glove products against specific chemicals.

- Used for **high chemical exposure** or chemical immersion, limited to breakthrough time based on a working day.
- Used for **repeated chemical contact**, limited to total chemical exposure i.e. : accumulative breakthrough time based on a working day.
- **Splash protection only**, on chemical exposure the gloves should be discarded and new gloves worn as soon as possible.
- **Not recommended**, these gloves are deemed unsuitable for work with this chemical.

   NT: Not tested

   NA: "Not applicable" because not fully tested (only degradation OR permeation results)

The chemical test data and overall chemical protection rating should not be used as the absolute basis for glove selection. Actual in-use conditions may vary glove performance from the controlled conditions of laboratory tests. Factors other than chemical contact time