

# Nafion™ Polymer Chemical Retention /

## Losses and Selectivity

Below is a list of common chemicals that we have performance and selectivity information for. This information has been collected from our customers and represents our collective experience drying gas streams with Nafion™ tubing -based dryers.

Analyte	Retention within Nafion™ tubing
Ammonia	Variable losses in the form of ammonium hydroxide
Ammonium Hydroxide	Over 90% loss
Acetaldehyde	Variable loss
Acetic Acid	Over 90% loss due to acid catalysis
Acetone (Dimethyl ketone)	Over 90% loss
Acetonitrile (Methyl Cyanide)	75% loss
Acrolein (vinyl aldehyde)	Variable losses
Anisole	100% Retained in the Sample
Benzaldehyde	75% loss
Benzene	100% Retained in the Sample
Benzonitrile (Phenyl Cyanide)	50% loss
Boron Trifluoride	100% Retained in the Sample
Bromoform	100% Retained in the Sample
Carbon Dioxide	100% Retained in the Sample
Carbon Disulfide	100% Retained in the Sample
Carbon Monoxide	100% Retained in the Sample
Chlorine	100% Retained in the Sample
Chloroethane	100% Retained in the Sample
Chloroform	100% Retained in the Sample

Crotonaldehyde	Over 90% loss
Cumene	100% Retained in the Sample
Diacetyl	Over 90% loss
Diethyl carbitol	Variable losses
Dimethylacetamide	Over 90% loss
Dioxane	Over 90% loss
Dimethylformamide (DMF)	Over 90% loss
DMS	100% Retained in the Sample
DMSO	Over 90% loss
Ethane	100% Retained in the Sample
Ethanol	Over 90% loss
Ethyl acetate	15% loss
Ethyl amyl ketone	20% loss
Ethylbenzene	100% Retained in the Sample
Ethyl ether	Over 90% loss
Ethylene	100% Retained in the Sample
Ethylene oxide	50% loss
Fluorine	100% Retained in the Sample
Fluorobenzene	100% Retained in the Sample
Formaldehyde	Variable loss
Formic acid	Variable loss
Helium	100% Retained in the Sample
Heptane	100% Retained in the Sample
Hexane	100% Retained in the Sample
Hydrogen	100% Retained in the Sample
Hydrogen Chloride	100% Retained in the Sample, high purge flow required
Hydrogen Cyanide	100% Retained in the Sample
Hydrogen Fluoride	100% Retained in the Sample

Hydrogen Sulfide	100% Retained in the Sample
Isopropyl Benzene	100% Retained in the Sample
Isobutyl acetate	Over 90% loss
Isovaleric acid	Variable losses
MEK	Over 90% loss
Mesitylene	100% Retained in the Sample
Methane	Retained
Methanol	Over 90% loss
Methyl Acetate	100% Retained in the Sample
Methyl Bromide	100% Retained in the Sample
Methyl Chloride	100% Retained in the Sample
Methyl isobutyl ketone (MIBK)	Over 90% loss
Methyl Methacrylate	100% Retained in the Sample
Methyl Nitrate	Variable losses
Methyl Sulfide	100% Retained in the Sample
Nitrobenzene	30% loss
Nitrogen	100% Retained in the Sample
Nitrogen dioxide	100% Retained in the Sample
Octane	100% Retained in the Sample
Oxygen	100% Retained in the Sample
Ozone	100% Retained in the Sample
Propane	100% Retained in the Sample
Phosgene	100% Retained in the Sample
Propionic acid	Variable losses
Propylene	100% Retained in the Sample
Propylene oxide	25% loss
Pyridine	100% Retained in the Sample
Sulfur Dioxide	100% Retained in the Sample

Tetrahydrofuran	Over 90% loss
Thiosinamine	Over 90% loss
Toluene	100% Retained in the Sample
Trichloroethene (TCE)	100% Retained in the Sample
Water	Over 90% loss
Xylene	100% Retained in the Sample

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