

## ATR-IR - Sadtler Solvents - Wiley

Spectra - 625

### Description

This database contains FT-IR reference spectra of 625 common solvents to aid in identification and analysis of these compounds. It also provides supporting chemical and physical information that is commonly required for these chemicals.

### Additional Information

Each compound is listed by its Chemical Abstracts name or its most readily recognizable name, together with frequently used synonyms. The molecular formula, molecular weight, melting point, and boiling point are displayed when available. Each spectrum is clearly labeled with the sample preparation technique as well as the ATR crystal and solvent used.

### Classifications

Hydrocarbons - 81  
Hydroxyl Compounds - 63  
Ethers - 35  
Carbonyl Compounds - 152  
Halogenated Compounds - 129  
Nitrogen Compounds - 107  
Sulfur Compounds - 17  
Deuterated Compounds - 11  
Water - 1  
More than one type of characteristic - 38  
atom or functional group

#### Below is a specific breakdown of compounds in the database:

Acetals - 4  
Acid Alcohols - 1  
Acid Anhydrides - 6  
Aldehyde Ethers - 1  
Aldehydes - 13  
Alicyclic Ethers - 9  
Aliphatic Acids - 11  
Aliphatic Ethers - 15  
Aliphatic Iodinated Hydrocarbons - 10  
Aliphatic Ketones - 15  
Aliphatic Monobrominated Hydrocarbons - 12  
Aliphatic Monochlorinated Hydrocarbons - 10  
Aliphatic Nitriles - 9

Aliphatic Polybrominated Hydrocarbons - 3  
Aliphatic Polychlorinated Hydrocarbons - 12  
Amides - 11  
Amino Alcohols - 4  
Amino Ethers - 11  
Aromatic Brominated Hydrocarbons - 7  
Aromatic Chlorinated Hydrocarbons - 5  
Aromatic Ethers - 6  
Aromatic Fluorinated Hydrocarbons - 5  
Aromatic Hydrocarbons - 21  
Aromatic Polychlorinated Hydrocarbons - 2  
Carbonyl Alcohols - 1  
Chloro Alcohols - 4  
Chloro Amines - 3  
Chloro Ethers - 7  
Cyano Alcohols - 2  
Deuterated Compounds - 11  
Esters of Aliphatic Monocarboxylic Acids - 48  
Esters of Aromatic Monocarboxylic Acids - 8  
Esters of Chloro Acids - 5  
Esters of Cyano Acids - 2  
Esters of Dicarboxylic Acids - 20  
Esters of Hydroxy Acids - 6  
Esters of Keto Acids - 6  
Esters of Polybasic Acids - 4  
Esters of Unsaturated Monocarboxylic Acids - 6  
Ether Alcohols - 18  
Ether Esters - 5

Halogenated Acids - 3  
Halogenated Compounds - 35  
Lactones - 2  
Monohydroxyl Aliphatic Alcohols - 41  
Monohydroxyl Aromatic Alcohols - 9  
Monohydroxyl Unsaturated Alcohols - 7  
Nitro Compounds - 8  
Nitro Ethers - 1  
Other Ketones - 15  
Other Nitriles - 8  
Other Nitrogen Compounds - 7  
Other Primary Amines - 2  
Other Sulfur Compounds - 9  
Polyhydroxyl Alcohols - 7  
Primary Aliphatic Amines - 8  
Primary Amines - 3  
Primary Aromatic Amines - 8  
Saturated Aliphatic Hydrocarbons - 38  
Secondary Amines - 13  
Sulfides - 5  
Tertiary Amines - 13  
Thioether Alcohols - 1  
Thiols - 2  
Unsaturated Acids - 4  
Unsaturated Chlorinated Hydrocarbons - 6  
Unsaturated Ethers - 1  
Unsaturated Hydrocarbons - 22  
Water - 1

### Technique

Most spectra were run on a Digilab FTS-40 spectrometer and were obtained using standard (ZnSe, 45 degree or Ge, 45 degree) attenuated total reflectance techniques. The spectra are presented over a spectral region 3700 to 648  $\text{cm}^{-1}$ . Some Cylindrical Internal Reflectance spectra were measured using a Spectra-Tech CIRCLE cell and exhibit the characteristic intensity changes resulting from internal reflectance measurements. The spectra are presented over a spectral region 4000 to 650  $\text{cm}^{-1}$ .

*This collection has been subject to the Sadtler Data Review Protocol™ to provide you with the highest standard in spectral data today. These rigorous qualifying procedures start at data acquisition and continue throughout the database development process.*